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5 Ways to Play Like Eliane Elias

Sam Barsh on Hip-Hop Keys

QUINCY JONES

On Production, His Protégés Jacob Collier and Alfredo Rodriguez, and Playground Sessions

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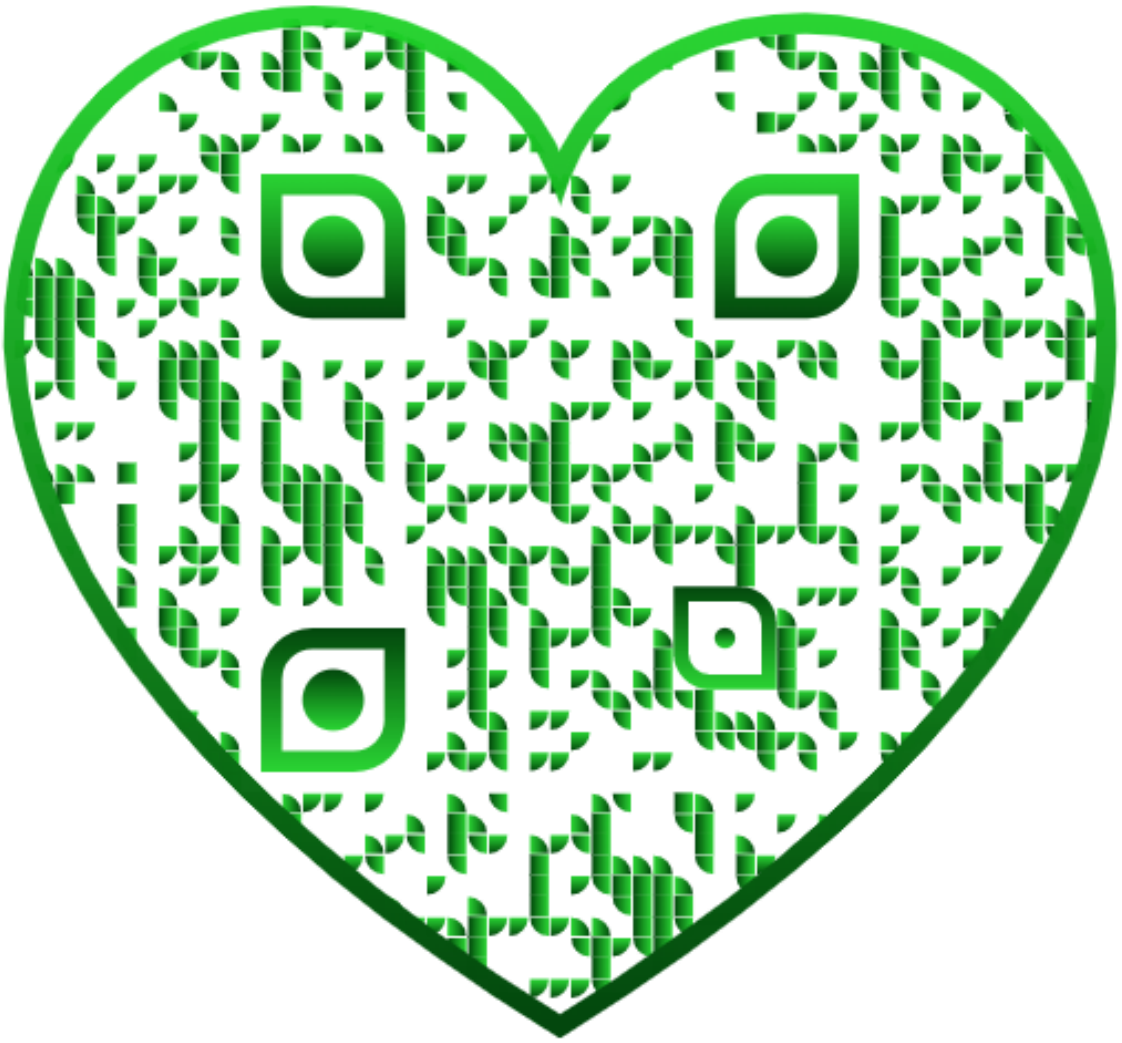

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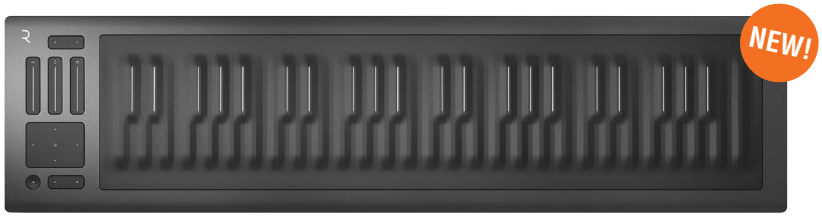

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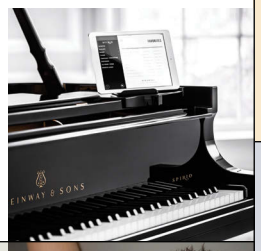

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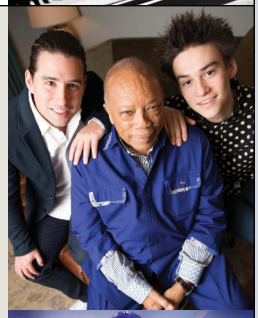

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COVER PHOTO: JUAN PATINO

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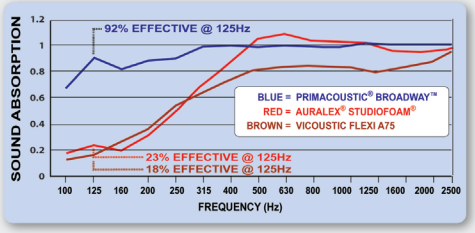

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electronic MUSICIAN EDITORS' CHOICE 2016

Editor's Note

I teach music technology courses in a local community college and one of my favorite assignments has to do with listening: I ask my students to pick a song they strongly dislike, listen to it several times, and bring in an analysis of what's happening. I have them analyze the form, orchestration, mix (foreground/background), instrumental/vocal balance, and so forth. Before they begin, I explain that it is very common for music business professionals to work across genres, and if you want to a have a successful, long-standing career, it's important to have that kind of flexibility.

But why not focus on music we enjoy? If we ignore a genre that we don't like or understand, we miss the finer points that make that music sound the way it does. Moreover, at the end of this assignment, I want the students to both recognize what differentiates one genre from another and to notice what they have in common. For example, many hit songs share structural characteristics (e.g., verse, chorus, bridge) and utilize the classic arc where the music builds to a peak, using tension and release to manipulate emotional impact. If a song doesn't use those elements, then we analyze it further to see what it does use.

The same sort of critical listening is important to musicians who want to make a career playing their instrument. Although you might not want to be a "jack of all trades; master of none," you *can* be a master of more than one musical style while being adept at others. And once you focus in on the details of music you don't understand or enjoy, you're likely to find things you can bring into your own work that add something fresh to your playing.

In this month's Coda (page 50), keyboardist/producer Sam Barsh couldn't have said it better: "The more you know, the more your value will increase in this crowded, competitive field."

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Gino Robair
Editor in Chief

KEITH NOEL EMERSON (1944-2016)

It is with great sadness that we learned of Keith Emerson's passing at the age of 71, just as this issue was going to press. Not only was Keith one of the greatest and most influential keyboardists in rock music, but he was also a friend to the staff and writers of this magazine for decades.

A creative composer and flamboyant performer, Keith turned on a generation of rock fans to classical, ragtime, and other musical styles, while his solo in Emerson, Lake & Palmer's 1970 hit "Lucky Man" introduced the Moog synthesizer to a wider audience. One highlight of his stage rig was his "monster Moog," a massive, highly customized modular system that Moog Music reverse engineered and offered as a limited edition in 2014.

Of course, Emerson's virtuosity extended to the Hammond organ, acoustic piano, and the Yamaha GX-1, among other instruments, and his unique and powerful playing style was instantly recognizable.

We will pay tribute to the legacy of Keith Emerson in the June issue of *Keyboard* and celebrate the musical gifts he left with us. But in the meantime, all of us here at the magazine send our sincerest condolences to Keith's family and loved ones.

Key Secrets A Synth for Every Finger

One of the coolest technologies at the 2016 NAMM show was *Multidimensional Polyphonic Expression* (MPE). As developer Geert Bevin (expressiveness.org) explains, MPE is like having one MIDI channel per finger. With controllers such as the Roger Linn Design LinnStrument, Roli Seaboard, and KMI QuNexus, each note in a chord goes out over a unique MIDI channel, enabling you to bend and modulate individual notes rather than affecting the entire chord. Typically, you'd control multiple instances of the same synth, but the concept reminded me of the Yamaha TX802, which could play a totally different sound with each keypress. I was delighted to find a free Kontakt script from SonicCouture.com called Channel Rotate that does just that. However, the script assigns the continuous controllers to the current channel and pitch-bend to all channels, so you can't modulate notes independently. Both MPE and the Channel Rotate script give you "one synth per finger," with different musical advantages. Hear them in action in my video at keyboardmag.com. David Battino

Larry Young *In Paris: The ORTF Recordings*

Newly discovered radio performances by organ legend

JEAN-PIERRE LELOIR

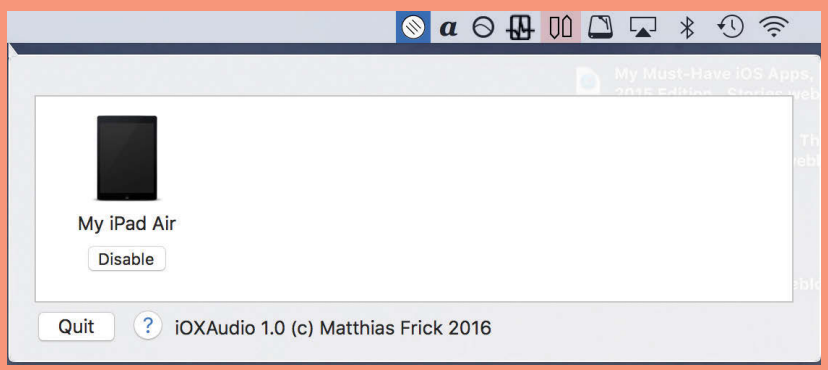
It's always a thrill to learn that an unissued recording of an important artist has been discovered, and we're usually willing to put up with less-than-optimum sound quality just to hear such treasures.

Happily, fidelity is not an issue with the newly released archival recordings of organist Larry Young. On *In Paris: The ORTF Recordings* (Resonance), we are treated to ten high quality, live and studio tracks from 1964 and '65, recorded by the Office of French Radio and Television and stored by the National Audiovisual Institute (INA). The collection highlights the young keyboardist (still in his early 20s) during his tenure in the City of Light, both as a sideman in the Nathan David Quartet (featuring 19-year-old Woody Shaw on trumpet) and the Jazz aux Champs-Élysées All-Stars, as well as in his own piano trio. Through these recordings we hear Young extending the boundaries of the music and his instrument just before his return to the States to record *Unity* for Blue Note and, later, to collaborate with Tony Williams, John McLaughlin, Miles Davis, and Jimi Hendrix.

In Paris: The ORTF Recordings is available as a two-CD set or in a limited edition two-LP package (with download card). The extensive liner notes include interviews with McLaughlin, Dr. Lonnie Smith, Bill Laswell, and others, with many never-before-seen photos from that period. The LP includes six postcard-size reproductions of the photos.

All told, this release is not only historically important, particularly to the legacy of Young, but it's a great joy to listen to. Highly recommended. Gino Robair

APP OF THE MONTH iOXAUDIO



A handy (and free) way to use Inter-Device audio within Mac OS X El Capitan.

INTRODUCED IN LAST YEAR'S MAC OS X EL CAPITAN release, Inter-Device audio allows iOS 9 devices to output digital audio directly into a Mac computer via the Lightning cable. The reason the protocol hasn't received proper attention is, the settings are buried in OS X's labyrinth of System Preferences. Fortunately, Matthias Frick has come to the rescue with his free open-source app, iOXAudio, which installs a handy set of controls right on your menu bar for turning it on/off.

With Inter-Device audio enabled via the app, all you have to do is open up your preferred Mac-based DAW and select your iPhone or iPad from the input pull-down menu in your preferences. From there, any audio in your mobile device will be available for recording in your DAW.

Granted, latency is a significant issue with this protocol. When using Ableton Live with extremely small buffer settings, I still had to nudge my tracks anywhere from 50-125 milliseconds for synchronized apps (using Ableton Link, naturally) to line up. To be clear, this is an issue with Inter-Device audio and *not* Link.

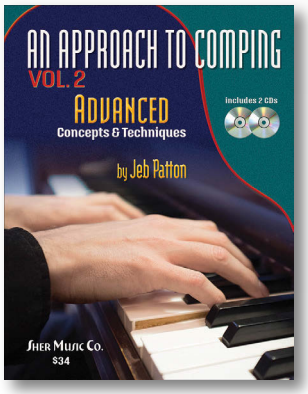
However, if you're doing iOS sound design with apps such as Boulanger Labs' extraordinary csSpectral (boulangerlabs.com), this is the slickest way to get the results into your DAW. Best of all, it's free. Download iOXAudio from https://github.com/sieren/ioxaudio/releases. Francis Prève

NEW GEAR

BY GINO ROBAIR

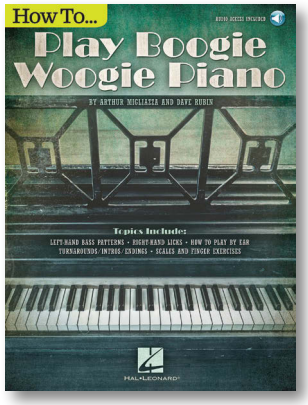
YAMAHA PSR-A3000 "WORLD-MUSIC" ARRANGER WORKSTATION

WHAT Based on the PSR-S-series instruments, the A3000 is designed for Greek, Arabic, Maghreb, Khaligi, Iranian, and Turkish musical styles. Super Articulation Voices provides the expressive nuance needed for playing patches based on non-keyboard instruments. Multi-pads can trigger audio files stored on a USB flash drive. **WHY** With its karaoke-style Vocal Cancel function, this workstation is suitable for a variety of live performance situations. **$1,999 | usa.yamaha.com**



AN APPROACH TO COMPING VOL. 2 BY JEB PATTON, PUBLISHED BY SHER MUSIC CO.

WHAT Chapters focus on comping with the left hand and at fast tempos, and provide detail on chord shapes, rhythms, and rootless voicings. Includes transcriptions of parts by Hank Jones, Bud Powell, Ahmad Jamal, Bill Evans, and others. **WHY** While there are many books that teach jazz soloing, few cover the techniques used to create background parts behind a soloist. **$34 | shermusic.com**

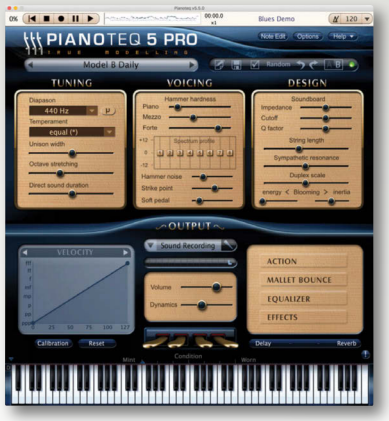


HOW TO PLAY BOOGIE WOOGIE PIANO BY ARTHUR MIGLIAZZA AND DAVE RUBIN, PUBLISHED BY HAL LEONARD

WHAT Step-by-step instruction covering a range of concepts such as left-hand patterns, right-hand licks, intros, endings, turnarounds, chords, and how to play by ear. Audio material that demonstrates the lessons is available online for streaming or download. **WHY** A straightforward way to master the skills needed to play this classic American piano style. **$16.99 | halleonard.com**

ALLEN & HEATH ZEDI-10 AND ZEDI-10FX

WHAT Compact 6-channel mixers with a built-in USB interface (24-bit/96kHz) and 3-band EQ. Four phantom-powered mono channels (XLR, TRS, and high-Z inputs) and two stereo channels, one for external playback devices or effects return. The FX version includes reverb, chorus, delay, modulation, and doubling. **WHY** Designed for use by musicians onstage or in the studio, as well as in small venues that need a small-format mixer. **$279 and $349 street | allen-heath.com**



MODARTT PIANOTEQ MODEL B

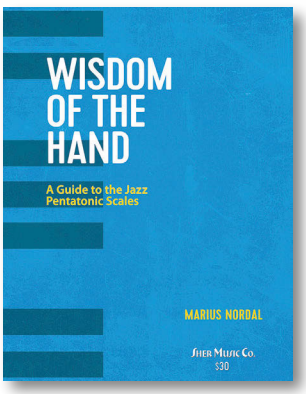
WHAT A physically modeled, virtual grand piano based on the Steinway & Sons Model B-211 from Hamburg—the Martha Argerich Edition of 25 hand-chosen instruments, signed by the artist. Modartt tweaked the software to increase tonal clarity and maximize the dynamic range. **WHY** Designed to provide a high-quality, virtual-instrument playing experience, including subtle expressivity, based on a highly sought after piano.
€49 (about $54) | pianoteq.com

KURZWEIL KA150

WHAT Spinet-style digital piano (with bench) that offers 128 presets (acoustic and electric pianos, organs, choir, orchestral instrumentals, etc.) and 26 accompaniment patterns in a variety of styles. Other features include splits, layers, transposition, touch and sensitivity controls, and a metronome. Bayer and Czerny Educational practice mode and Dual mode provided for building keyboard skills. **WHY** Part of the Kurzweil Academy line of digital pianos for the home.
$899 street | kurzweil.com

WISDOM OF THE HAND BY MARIUS NORDAL, PUBLISHED BY SHER MUSIC CO.

WHAT Subtitled *A Guide to the Jazz Pentatonic Scales*, the book covers major, minor, and blues pentatonic scales, the Coltrane and the major flatted-6th pentatonic scales, and chordal vs. linear improvising, as well as chord shapes and rhythm. Etudes and two CDs included. **WHY** A useful book for gaining dexterity, using your thumbs appropriately, and, most interestingly, thinking beyond scalar playing.
$30 | shermusic.com



ROLAND KEYBOARD STANDS AND BAGS

WHAT Stands in x, double-x, z, and column configurations, designed for various keyboard sizes (such as 88 weighted-key instruments). Tier extensions are available. The bags are available in two series and five sizes. Gold-series bags have plush interiors and integrated impact panels. Larger bags have wheels, while smaller bags offer back straps. **WHY** These accessories not only work with Roland products but also support gear from other manufacturers.
Prices vary | rolandus.com

All prices are manufacturer's suggested retail (list) unless otherwise noted. Follow keyboardmag.com/gear and @keyboardmag on Twitter for up-to-the-minute gear news.

Acoustic Upright and Grand

THE STEINWAY SPIRIO HIGH-RESOLUTION PLAYER PIANO SYSTEM

BY JON REGEN

NEARLY A CENTURY AFTER THE PLAYER PIANO TOOK LISTENERS' EARS AND living rooms by storm, storied instrument maker Steinway & Sons has launched its new revolutionary reproducing system, Spirio. "The Spirio is taking the humanity, spontaneity and richness of the Steinway piano sound into the 21st Century," says Elizabeth Joy Roe of keyboard duo Anderson & Roe. "It marries technology with something analog in a really beautiful way."

Developed in collaboration with acclaimed player piano designer Wayne Stahnke (of Bösendorfer 290SE fame), the Steinway Spirio is in many ways a departure from today's current crop of reproducing pianos, with sensors that allow minute gradations of touch, trills, pedaling, and more.

"Steinway has been talking about creating its own integrated, high-resolution player piano for nearly 25 years," says Stephen Millikin, Senior Director of Global Public Relations for Steinway & Sons. "But unfortunately, the technology just didn't yet exist for a player system that was truly up to Steinway standards." About two years ago, Steinway joined forces with Stanhke, who worked with Steinway's internal team to refine the technology.

While many of today's piano player systems are retrofitted onto existing instruments, the Steinway Spirio is installed at the time of the piano's production, allowing seamless integration between touch and technology. "One of the most vital points in bringing the Spirio system to life was the directive that at the end of the day, it's a Steinway," Millikin says. "That means it has to play like a Steinway, with the same touch and tone our instruments are known for. The artists that have played and recorded on it—everyone from Yuja Wang to Lang Lang and others—have remarked on how there is no difference in response when compared to a standard Steinway. By having the system installed at the time of the piano's manufacture, we can ensure that when you sit down to play a Spirio, it is first and foremost a Steinway piano. It just happens to have this amazing technology that lets the piano take over playing if you want it to!"

Along with its uncanny ability to reproduce minute pianistic movements, the Spirio contains state-of-the art mechanics and an operating system that is easily controlled (and upgraded) through an iPad and app that comes with each piano. Steinway is also continuously recording and adding to its online music library of high-resolution performances for the system, and additional performances are provided to Spirio owners monthly, at no charge.

"Spirio owners never pay for the music in their catalog," Millikin says. "It's all free, all the time, and you can choose from jazz, classical, and other genres as well, all from Steinway artists. We're also able to offer unique and custom content for Spirio. For instance, [Grammy-winning pianist] Bill Charlap recorded a new album that is only available on Spirio. We also recently acquired the technology created by Zenph, which allows us to translate classic recordings by famous pianists into the data files used by Spirio. So your piano can now play exactly like George Gershwin or Van Cliburn did onstage in a concert hall."

The Steinway Spirio is currently available in three different models: the Model B (6'10.5") worldwide, the Model M (5'7") in the U.S. and Canada, and the Model O (5'10.5") available in select European and Asian markets. For more information visit steinway.com/spirio. ♫

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ANECDOTES AND INSIGHTS FROM THE INIMITABLE

BY STEPHEN FORTNER | PHOTOS BY JUAN PATINO

HOW DOES ANYONE BEGIN TO DESCRIBE QUINCY JONES? ANY TOP TEN list of the most important musicians of this century and the last would surely include him; but then there's the matter of stating what his gig even *is* without depleting the world's supply of hyphens. His career is a list of firsts and accolades. Sideman at age 19 to jazz vibraphonist Lionel Hampton? Check. First conductor to use a Fender electric bass? Check. First African-American to be embraced by the Hollywood scoring community? Check. And *then* the first guy to bring the sound of the synthesizer into American living rooms via the *Ironside* TV theme song? Check. Twenty-seven Grammys won as a producer, arranger, and/or composer? All that, too.

It might be that we give context to Q based on when we first got hooked by his work, whether that was the theme to Norman Lear's bold social-commentary-in-sitcom-clothing called *Sanford and Son*, the tiki-drink levity of "Soul Bossa Nova," or the precision grooves of his production work on Michael Jackson's three most important albums: *Off the Wall*, *Thriller*, and *Bad*. If you try to confine his musical identity to words, though, you find yourself dipping a slotted spoon into an undifferentiated ocean of excellence.

It would be so much simpler to just *talk* to Q about music and what he's up to. So let's do that! Always one to move forward and blend musical genres, what's keeping Mr. Jones busy these days includes producing, mentoring, and managing today's most promising keyboard artists, as well as working with Playground Sessions, an online platform that aims to teach piano using real songs and an engaging game-like method designed to keep aspiring players' fingers on the keys. In this exclusive interview, we catch up with Quincy about the old stuff, the new stuff, and the real stuff.

What was it like coming into musical notoriety so young, next to the likes of Miles Davis?

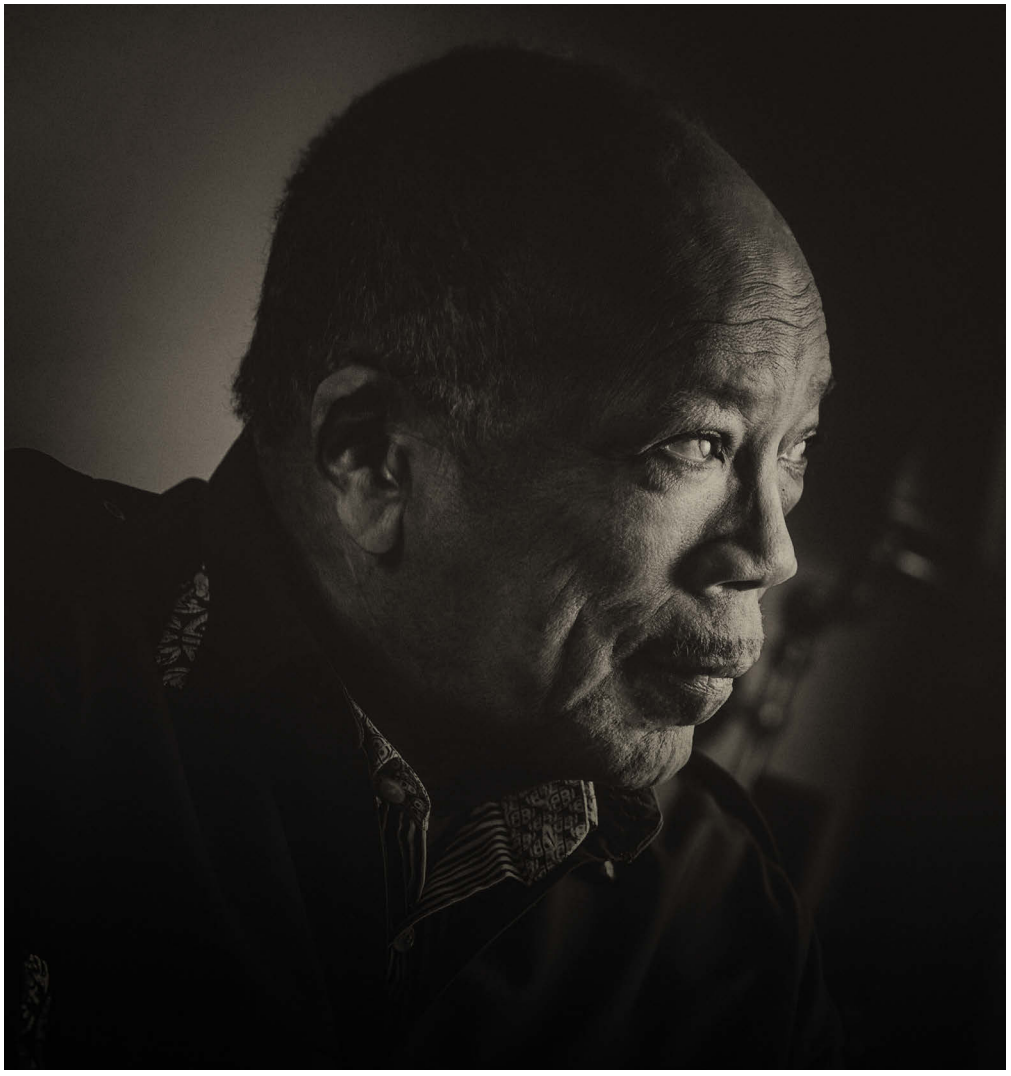
It was like going to Heaven. I have to acknowledge Miles, and all the guys who put me on their shoulders, from Claude Perry to Benny Carter to Ray Charles. Now today, I'm grateful because I can get the same enjoyment from putting some of the young kids, some of the up-and-coming musicians, on my shoulders. I love it, man. What you have to understand about when I was coming up is, we had no idea what was going to happen to us. All we knew is what Ray Charles was preaching: Be totally loyal to each and every genre of music. So when we were young, we learned them all.

What was your first big break as a jazz musician?

Well, we had all kinds of breaks. When we were 14 years old, we got to work with Billie Holiday at the Eagles Auditorium. Billy Eckstine at the Tremont Ballroom. Cab Calloway. We were lucky to have an early start, because it was a little pond and I guess we were big fish. We would dance, sing, play, do comedy—we'd pretty much do everything at 13, 14 years old. And again, we had to learn every musical genre to do that. From John Phillip Sousa to pop music to burlesque music to show tunes. It was unbelievable.

How did you get from there to composing for films and TV? What was your point of entry?

The root of that is, I used to play hooky from school when I lived in Seattle, where my family had moved during World War II. The movies cost 11 cents. So I'd play hooky, and I'd go to the movies, and I got totally familiar with the sort of musical ideology of each studio. For example, [composer] Alfred Newman's fanfare music for the 20th Century Fox logo, or Victor Young, who was a huge composer at Paramount, or Stanley Wilson at R.K.O. After awhile, it was as though I could hear the "editorial policy" of each of those composers and film studios. I guess I just figured it out, because it wasn't like they had any African-Americans composing for films at that time. A brother might have gotten credit for maybe one



song, but not a composer's credit. So we were starting from scratch.

What was the first film on which you worked as a full-blown composer?

That would be *The Pawnbroker*, directed by Sidney Lumet. Actually, I'd done one in Sweden before that, which was called *Pojken i Trädet*, which translates as "The Boy in the Tree." But *Pawnbroker* was the first big Hollywood movie I scored. I had an agent, Peter Faith, who was in fact the singer Percy Faith's son. He would never let me take on a "B" movie. He said, you're only going to do A-list movies. And it was so wonderful that [actor-director] Sidney Poitier gave me six movies to do, and Sidney Lumet gave me five movies. That's what got me into the business. Lumet, by the way, was a great director—*Twelve Angry Men* and all that stuff.

Your bio lists the *Ironside* theme as the first synthesizer-based pop TV theme song, with its pitch-sweep "siren" that Quentin Tarantino then borrowed in *Kill Bill*. Can you tell us anything about that process?

Ah, that's right. Paul Beaver, a jazz musician who later got very into electronic music, hooked us up with the synthesizer. Wendy Carlos had one of the first synthesizer *albums* to really be in the mainstream with *Switched on Bach* in 1968, but *Ironside* was on TV a bit earlier than that. So it was one of the first times the public, outside of musicians and enthusiasts, had heard the sound of the synthesizer. It was kind of like when Leo Fender brought us his electric bass in 1953, when Wes Montgomery's brother was playing bass with us—Monk Montgomery. Without that instrument, there would be no rock 'n' roll, no Motown. Without the Fender bass, there'd be no electric rhythm section. So think about the music we wouldn't have without the synthesizer.

What was the first time you laid hands on a synthesizer yourself?

I can remember that it was one of the very first ones that came out. Robert Moog introduced it to us, and from them on, we were glad to be guinea pigs for new synthesizers that came out of Japan or anywhere else. As well as things like the Yamaha organs, like the YC-45. There was this core group of us that were guinea pigs—Lionel Richie, myself, David Paich, Herbie Hancock. We were the early experimenters.

Did you like synthesizers initially or were you skeptical?

Are you kidding? [*Laughs*.] I loved them! To me, they were just one more type of instrument to add to the orchestration. They didn't *replace* anything, which I know a lot of musicians worried about. I just saw them as an addition to the sound. You know, when Dr. Moog first came out with his synths, he asked me, "Why aren't more African-American musicians playing the synthesizer?" I said, "It's great that you can sculpt this electrical signal into a sound. It's great that you have a sine wave for a pure tone, and a sawtooth for something more raw. But Bob, it doesn't *bend*, and that's why we're not playing it more. If it doesn't bend, you can't get funky!"

He invented a pitch-bender, and after that, musicians like Stevie Wonder, who was working right next to me back then, embraced the synthesizer and started recording hits. But again, I want to emphasize that the Fender electric bass and the synthesizer were really trademarks of the new wave of music at the time.

Can you comment on your studies with the legendary French composer and educator Nadia Boulanger? What was the most important thing she taught you?

Oh man, *everything* she taught me was important! Number one, you had to audition for her. You didn't just say, "I want to take lessons from you." She once asked me, "What specific characteristics do you put on the *C* major scale?" I thought for a minute, then answered, "Well, there's a half-step between notes 3 and 4, then between 7 and 8." She said, "Okay, now start on *E* and come down," and it was exactly the same relationships.

She taught me that you don't have any real musical freedom until you work within restrictions, which I know goes against a lot of ideologies. Also, the relationship between mathematics and music, which a lot of us try to deny because that sounds too mechanical. But if you look at what composers like Slonimsky were grooving to, that's not true. You can have *fun* with mathematics as a source for music.

Also, she told me, "For over 700 years we've had only 12 notes. Until God gives us a 13th one, I'm going to teach you everything that can be done with the 12." That's why to this day, there's no musical genre that scares me. Think about disco and EDM, the idea of four-on-the-floor. That was going on in the '40s with Count Basie. There may be different elements on top of it to-

day, but four-on-the-floor certainly isn't new. So thanks to her, nothing scares me.

Based on your learning from Nadia, is there anything you'd like to see change about how music is taught?

Yes. It's just insane to me that America doesn't have a minister of culture, especially with our country being the birthplace of blues and Gospel and jazz. The music of a place is so tied into the food, the attitude of a people, their mood, the weather, and everything about a culture. So it's just stupid we don't have a minister of culture to educate and reflect on these things at a national level.

Of the many session players you've hired over the years, who has stood out the most?

The ones I work with all the time. Greg Phillinganes on keyboards, John Robinson and Ndugu [Chancler] on drums. Louis Johnson was the greatest bass player that ever lived. He died last year, at just 60 years old. They were with me a long time, because we used to *live* in the studio! Also, the saxophonist Phil Woods, who recently passed away. He played with me for 61 years, in some way or another with every band I've ever had. That was a terrible loss.

THE Q FILES: MENTORING

When you've accomplished everything, you seek inspiration in the accomplishments of others. That's why Quincy Jones is putting a great deal of his current energies into producing, managing, and mentoring promising young artists. Anyone would give their eye teeth for a ten-minute lesson from Quincy, so what makes *him* want to take someone under his wing? The answer begins with an anecdote about our shared musical history.

"Someone either has or doesn't have the *identification*," Jones ponders. "A great singer, for example, I want to be able to know *who they are* within 30 seconds. For example, I was supposed to do Johnny Mathis' first record, but Dizzy Gillespie had asked me to be his musical director for the State Department goodwill band, and we were about to tour the Middle East and then Latin America. So I gave the record back, and told [Columbia Records vice president] Mitch Miller, "I think Johnny is a great singer, just maybe not a *jazz* singer." He'd had a jazz record that didn't do so well. Mitch took him aside and made him sing ballads like 'The Twelfth of Never' and 'Chances Are,' and that was *it*. That became what he was known for."

Point being, you need a firm sense of what you can contribute to an artist's development. Among the keyboardists who've given Quincy this sense are Jon Batiste, now bandleader on *The Late Show With Stephen Colbert*, and the piano prodigy Emily Bear. The two who graced our photo shoot are Cuban pianist Alfredo Rodriguez and YouTube singer and multi-instrumentalist sensation Jacob Collier.

Quincy on Alfredo: I met Alfredo—it must have been about eight years ago—at the Montreux Jazz Festival. He was with another Cuban piano player and I totally loved what they were doing. When we all got back home, I sent my vice president Adam Fell to sponsor him out of Cuba. He left Cuba and went to Mexico, but was detained there. He played piano for the police, and they let him go! The guy practices, like, 14 hours a day! We just booked him in China for a bunch of one-nighters. We travel up to six or seven months out of the year with a group called the Global Gumbo All-Stars. It's the most exciting thing I've ever done.

Alfredo on Quincy: The first piece of advice Quincy gave me was just to be myself and follow my own destiny in terms of music and every other aspect of life. I'm just trying to learn from a person like him, who has so much experience in music and life in general. It's so important for young people to have mentors and guides to help make life better, so I just feel fortunate to be a part of Quincy Jones Productions. He's a person that I admire so much.

Quincy on Jacob: He's on *fire*, just one of my favorite young artists on the planet right now. You know, he arranges all those harmonies, all those vocals in his videos. He does everything, even the hairstyles in the videos! His mother, who's Chinese, is a concertmaster and symphonic conductor.

Jacob on Quincy: Quincy has taught me many things. The importance of simplicity, the philosophy of framing a song as opposed to concealing it, the essentiality of knowing one's history and the cultures of the world, the necessity of leaving your ego at the door so you can allow space for God to walk into the room, the importance of listening twice as much as you speak, and the balance of science and soul, to name but a few. However, I would say the most important thing I've learned from spending time with Q is to see and treat every person you meet as a human being *first*. I have both participated in and observed Q being met by friends, family, colleagues and admirers alike, and he has a disposition towards all of them which is constant in its treatment of everybody with respect and love.

Alfredo Rodriguez's new album *Tocororo*, which has enjoyed top position on the iTunes jazz chart, is out now. Moving far beyond split-screen YouTube videos, Jacob Collier has been called "jazz's new messiah" by *The Guardian*. His studio album *In My Room* is due at the beginning of July.

LEARN PIANO WITH PLAYGROUND SESSIONS

One of Quincy Jones' latest endeavors is involvement with Playground Sessions, an online learning platform for the piano keyboard. What did it take for founder Chris Vance to get the legendary impresario to carve a big Q on this startup? For one thing, they share a passion about using technology to bring music to everyone.

"I remember the first trip the band took to Europe in 1953," recalls Jones. "It was in a propeller plane and it took 27 hours to get from New York to Oslo. Then, jet engines changed everything. Now, think about television changing music. I once asked Mikhail Baryshnikov how he had the courage to defect from Russia in the '60s. He said it was because of TV. He saw [ballet company director] Roland Petit in Paris, and the American Ballet Theatre in New York, and thought, 'I can do that!' That's the power of communication."

Playground Sessions applies this power through "game-ifying" the process of learning your way around the 12-note scale. Think *Guitar Hero*, only with a real instrument (the keyboard) and real songs across all musical genres. Jones speaks enthusiastically about the game approach.

"Take mathematics," he says. "I recently learned to play Sudoku, the Japanese number-puzzle game. There's no emotion in that—it's all math and logic. But it's so good for your mind. If you make music a game, and challenge your mind, don't worry about losing your emotional soul—it will still be the true leader. But your mind will get better at this amazing process of getting up *next* to music. And again, it's not a curse to know the theory behind what you're doing. That's what we're trying to reinforce."

Founder Chris Vance reinforces the idea that although it's fun, it's not merely fun and games. "Playground is set up as a game," he says, "but the ultimate reward is an emotional connection to the music—that feeling that you get when you're playing it *well*. We don't ever want to let the idea of gaming get in the way of that, because we think that music is meant to be played, not just listened to. But we use 'game-ification' to help people stay engaged. People like to be competitive with themselves, and with others, so that's a strong motivator for practicing piano like you might practice a sport."

Another core value of Playground Sessions draws on something Quincy says in this interview: There are "only 12 notes," and knowing that, you shouldn't be scared of any genre. "So we don't overthink music genre," says Chris Vance. "To reinforce something like reading notation or hand independence, you may be playing 'Imagine' by John Lennon one minute, and 'Take the A Train' by Duke Ellington the next. After that, 'Moonlight Sonata' then 'Uptown Funk'."

And in the tradition of Sy Sperling and Victor Kiam, Vance relies on his own product. "I learned to play the piano entirely through Playground Sessions," he testifies. "It took me awhile to not be shy about saying I was anything like a *musician*, but now I've gotten quite good."

Learn more, and hear it from Quincy's lips, at playground-sessions.com.

Why did they stand out? How much of it was natural talent, and how much was hard work?

Well, natural talent has a lot to do with hard work. The only place you'll find success before work is in the dictionary, because it's alphabetical! [*Laughs*.] Now, God gives you an amount of natural talent, for sure. It's right-brain, and it's about emotions. Those come naturally. But the science of your craft is left-brain. You have to learn it. That's the thanks you give back to God: to work hard on your core skill. You hear a lot about technologies like Pro Tools making things too easy, for example. But that's okay. If you know what you're doing, Pro Tools works for you. If you don't, you work for it. You can't get around it. Another example is that a lot of cats back in the day used to say, "Sure, I read music, but not enough to hurt my swing," as though having technique and knowing what you're doing was some sort of crime. That's bullshit. Being really good at reading music sure didn't hurt Herbie Hancock or Chick Corea.

Do you see any connections between music and health?

Absolutely. The way music activates parts of your brain is good for elders with dementia. We need to be doing a *lot* more with music therapy in health care.

One very ubiquitous song of yours is "Soul Bossa Nova." It was in *The Pawnbroker* as well as *Austin Powers* and has become an icon of lounge and "exotica" music. What inspired it?

I had been to Brazil in 1956 with Dizzy Gillespie, on tour with a goodwill band from the U.S. State Department. We'd been in Argentina, and Lalo Schifrin [composer of the *Mission: Impossible* theme] said, "Wait 'til you get to Brazil! They've got this thing called bossa nova there, which means 'the new wave.'" Dizzy actually influenced bossa nova—which grew out of a mixture of samba and jazz—with that trademark flatted fifth of his. When we got to Rio, he asked me to go down to the Hotel Gloria on Copacabana Beach, where he played with a samba rhythm section. Dizzy was always one to merge jazz with South American and Cuban music. It's interesting as well that African cultures like Angola influenced this music. We'd sit in at that hotel with Dizzy, Astrid and João Gilberto, and Antônio Carlos Jobim. So a lot of that is what's behind "Soul Bossa Nova."

You mentioned Cuban music. Did you ever get into the Cuban composer Ernesto Lecuona?

Of course! All the jazz guys back then were just junkies for Afro-Cuban music. Think about Dizzy's tunes like "Cubana Beat" and "Manteca." Cuban music, with its polyrhythms and everything . . . it's so good, it's hard to improve on it! [*Laughs*.]

More in the funk vein is your classic tune "Stuff Like That." Can you give our readers a quick history of that song?

We made the original track in New York, and we had Stuff on it—Stuff, the band. That had [keyboardist] Richard Tee, [drummer] Steve Gadd, [bassist] Chuck Rainey, [guitarist] Eric Gale: those guys that used to work with Roberta Flack. Stuff was one of the best groups in the world. Ashford and Simpson heard the song, liked it, and decided to write lyrics to it. And the rest is what you know about.

Your production on Michael Jackson albums like *Off the Wall* and *Thriller* has always included a lot of interlocking instrumental riffs. None are particularly busy by themselves, but they always form a perfect groove. One more or one less guitar or keyboard lick in the background, and it wouldn't be as funky. How do you achieve exactly the right amount of "busy"?

That's because of polyrhythms—the same sorts of polyrhythms we were talking about coming out of African and Cuban music. So you have to study those. It's a lot like architecture. In fact, I'm getting ready to do a tour with [architect] Frank Gehry. He tells me all the time, "If architecture is like frozen music, then music is like liquid architecture." So we're going to do an exhibit with his blueprints and my scores. In both cases, you have a lot of individual elements that don't seem like much until you put them together, then you get this collective sum that gives you the final impression.

On that topic, what does it mean, in musical terms, to have a solid groove or to be *funky*? What is funk?

It means to get nasty! Funk is supposed to make you feel a positive emotion in every part of your subconscious mind. It deals with the heart in its purest form. That means, for one thing, that you can get greasy with all those blue notes. Funk goes back to the blues, which were developed to take the pain out of the hardships of life. Before that there was Jesus and the church and gospel. Then people got a guitar and a harmonica for "traveling music," which was after slavery. [Musically] funk was the same thing, only now it was about whiskey and women! [*Laughs*.] I'm actually working on a 3-D animated movie about this, because it's an astounding story of how all these musical influences propagated through the slave trade, sometimes due to where they stopped along the way—Brazil, Cuba, Haiti, Jamaica.

Speaking of which, your own music has always been closely associated with the civil rights movement.

Absolutely. You know, before there was any sort of Black activist movement, there was the music. Music changes things first. I remember, three months after Charlie Parker died in 1955, the baseball player Jackie Robinson and his wife Rachel asked me to play at their house in Stamford, Connecticut, for a benefit. I had a big band and I was as broke as the Ten Commandments, so I said yes. Rachel said, "After you finish, I'd like you to meet a special friend." So afterwards, a guy came over with her, in a black suit, white shirt, and black tie. She said, "I'd like you to meet Martin Luther King." I worked with him for years after that.

In the studio, what was the division of tasks like between you and engineer Bruce Swedien? What was your chemistry like?

It's very simple. I look at a record producer as being like the director of a film. They have an overall vision they're trying to get across. Then there's the D.P., the director of photography, which is like the recording engineer. They have the tools and the experience to translate that specifically into what the audience sees—or hears.

Does that analogy apply when in fact you're composing music for a film?

Oh, yes! When I first started composing, they had "representative scoring," which meant you hear exactly what you see. There was one aural thing for each visual thing, and the visual thing would be in the center of the screen to pull the audience in. But then, you take [a director] like Fellini. He'd have, for example, a calliope playing this off-the-wall carnival music, but then behind some bushes there's a swamp where somebody got murdered! But all you hear is this joyful calliope. Point being, music tells you what to feel. Spielberg and I always called it "emotion lotion." A lady walking down a dark hallway doesn't mean

anything until you play the musical "Oh shit!" card. [*Laughs*.] It's a tricky balance between dissonance and consonance, conflict and resolution.

Whether it's scoring or producing a record, what's the difference between a merely good session and a *great* one?

A great session begins with a powerful structure. For film or television, that's a great story. For a record, it's a great song. That's what our entire business of entertainment is about. A great song can make a bad singer a star, but the three best singers in the world can't save a terrible song. I learned that 50 years ago working with guys like Frank Sinatra. Because if the song wasn't great, they weren't taking none of it!

Out of curiosity, is there anyone in pop today you think has any Sinatra in them?

Hell, yeah. The young singer Tommy Ward has a *lot* of Sinatra in him! Perfect pitch and everything.

You've played all roles in the process of music creation. How important is knowing music theory to someone who wants to be a producer, as opposed to a composer or arranger?

It's very important. Like I said, some cats say that knowing too much hurts your swing or your creativity, and I think that's terrible. It's like Nadia Boulanger taught me, if you have a path of restrictions and know exactly what the mood of the music is supposed to be—slow or fast, happy or sad, major or minor—that actually gives you a lot of freedom to create *within* those restrictions.

Do you ever still just sit down and play music for your own enjoyment?

All the time! That's what grounds you.

What was the most surprising or unexpected musical lesson you ever encountered?

There are a lot of those, but one instance must've been about 50 years ago at Birdland. That club was on fire back then, with everything going on in jazz on 52nd Street in New York. Count Basie used to rehearse there every Monday. All the composers and arrangers—Thad Jones, Ernie Wilkins, Neal Hefti, myself, all hung around with our arrangements, praying that Basie would play one. He'd only pay 50 dollars for an arrangement, and sometimes we wouldn't get paid for six months, but we didn't care. Count Basie was playing our music! Neal Hefti, who was probably the highest-paid arranger then, was there one night, and he kicked off "Lil Darlin'," only fast. [*Jones sings melody very fast*.] Basie went, "No!" And he slowed it way down. That was when I learned the meaning of "in the pocket." It was like a different song! You could now hear all the harmony. And that's what jazz arrangers still live by; getting the tempo where God wants it to be for that song.

What is the best advice anyone has ever given you?

Again, there's so much. Let me see. My first television production that I was in charge of was a tribute to Duke Ellington called *Duke We Love You Madly* [1972]. Ray Charles was on it, Sammy Davis Jr. was on it, we just had an amazing cast. Duke left me a picture afterwards, on which he wrote, "May you be the one to *de-categorize* American music." I feel like that's an assignment Duke gave me that I'll always be responsible for.

What advice would you pass on to aspiring musicians?

One, melody is God's voice. Two, I think music and water will be the last two things to leave this planet, because we can't live without either of them. Finally, my teacher Nadia Boulanger once told me, "Your music can never be more or less than you are as a human being." She's right. No matter how much music you know, if you haven't lived your life fully, you really don't have anything to say. ♫

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Loren Gold

THE STADIUM ACE

BY JON REGEN

KEYBOARDIST LOREN GOLD HAS BEEN PUTTING HIS OWN STAMP ON CLASSIC tunes by The Who as he tours the world as part of the fabled band's "The Who Hits 50" tour. Find out more at lorengold.com and twitter.com/lorengold.

NAME: Loren Gold

HOMETOWN: Palo Alto, Calif.

MUSICAL TRAINING: I was classically trained, starting with group lessons from age seven. After a few years, my teacher realized I was ready to start branching out because I was taking simple Mozart pieces and turning them into boogie-woogie shuffles!

FIRST GIGS: I played piano at an upscale French restaurant in Palo Alto at the age of 14; it included a free meal! Years later, I took a similar gig in Los Angeles when I was between tours. I had one of those large fake books, and I would make my own arrangements on-the-fly. It was great training.

MUSICAL INFLUENCES: The Beatles, Billy Joel, Stevie Wonder, Elton John, and so many others.

WHAT I'M LISTENING TO RIGHT NOW: Bob Dylan *The Freewheelin'* Bob Dylan. It has taken me years to understand and appreciate him, but now I get it. I can only imagine how powerful this record must have been back in its day.

INSTRUMENTS PLAYED: Piano, organ, synthesizer... and I'll bang away on a guitar or drum kit if given the chance!

MY BIG BREAK: Playing for pop acts like Tiffany and Hilary Duff, which put me in front of very large crowds and the opportunity to travel around the world. After those gigs, I enjoyed MD work for other young artists like Selena Gomez and Demi Lovato, where I would hold auditions, hire the musicians, and then prepare the band to tour. I continue doing such work and enjoy each experience. I would say my real *big* break as a professional musician was being hired as the keyboardist for Roger Daltrey.

LATEST ALBUM: My latest project is actually a book/DVD released through Alfred Music entitled *Sitting In: Blues Piano*. The series simulates the experience of interacting with a full band. I'm currently working with Alfred on a rock book, which should be released later this year.

FAVORITE KEYBOARD GEAR: My Fender Rhodes, which I've been playing since junior high school. It still sounds great and inspires. I also love my Hammond C2 and Leslie 147 combo. On the road, I've been using the Korg Kronos X. It covers so much ground and is the staple in my setup.

WHAT'S NEXT: In addition to the music books, I'll be hitting the road with The Who, starting in London and continuing throughout North America.

ADVICE TO OTHER MUSICIANS: Obviously, practice as much as you can, but when it comes to playing and/or auditioning for other artists, be ready to go. In other words, overprepare. You should show up for a gig calm, relaxed, and full of positive energy. Having all your sounds programmed and songs memorized (unless it's a chart reading gig) will take a lot of pressure off and allow you to connect better with the other musicians. I find that if I walk into the room ready for anything, I can look the other musicians in the eye, connect musically, and have fun. ♫

Watch Loren Gold play "Won't Get Fooled Again" with The Who live in 2015.

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5 WAYS TO PLAY LIKE Eliane Elias

BRIAN CHARETTE

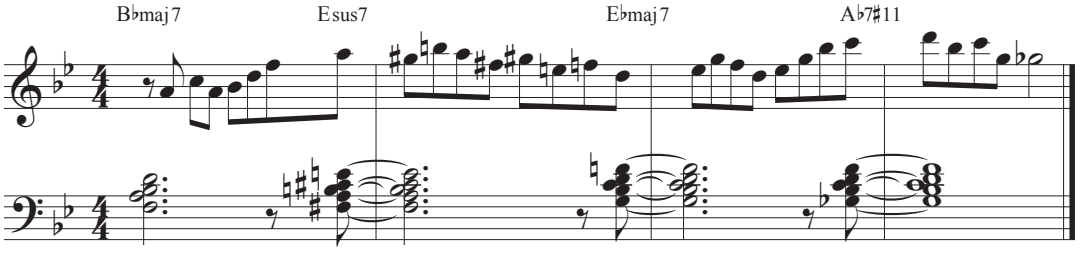
PIANIST, COMPOSER AND SINGER ELIANE ELIAS IS ONE OF THE MOST ACCLAIMED MUSICIANS ON THE MUSIC SCENE today. Born in São Paulo, Brazil, Elias began playing piano at an early age before moving to New York City in 1981; there, she launched her career performing with acts such as Steps Ahead. In 2015, Elias made the journey back to her homeland to record *Made in Brazil*, which recently won the Grammy Award for Best Latin Jazz Album. Here are a few exercises inspired by selections on the album so you can put some of Elias' musical grace into your own playing.

Ex. 1

1. Reverent Rhodes

Ex. 1 is inspired by Elias' simmering Fender Rhodes on the opening track, "'Brasil." Her playing paints the song's harmony with the use of clever arpeggios and subtle chromatic embellishment. Notice the appearance of standard jazz chord voicings in the left hand with an easy, offbeat right hand solo line. The notes in bars 1-2 outline the *Amin9* chord with a descending arpeggio from the *ninth*. The *G♯* in bar 2 is a slight chromatic embellishment of the tonic and morphs into a bebop inspired line over the *C min/maj7* chord. In the beginning of bar 3, we approach the target note *C* from a step above and half step below before playing another arpeggiated shape that ends on the dissonant *B* natural.

Ex. 2



2. Solo Lines

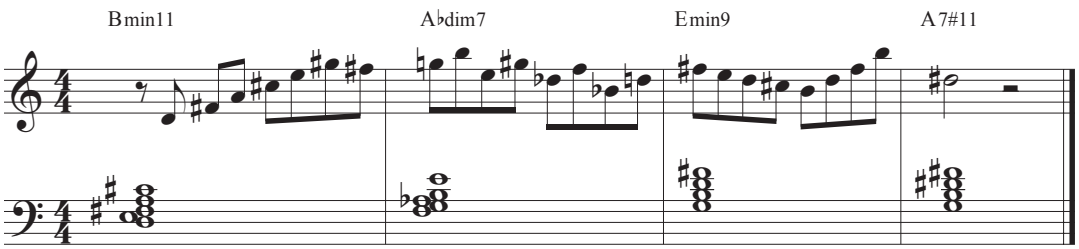
Ex. 2 takes its inspiration from Elias' playing on the Jobim tune "Aguas de Março" ("The Waters of March"). Here, Elias weaves an improvisational line highlighting the corners of the chord progression. In bar 1, we have the same approach as in Ex. 1, targeting a note from a half step below and a chord tone above. Notice how we embellish the *B♭maj7* chord by playing an arpeggio of its chord tones (*B♭, D, F, A*). At the end of the bar, we have a tritone substitution with a *7sus4* sound. Bar 2 uses notes from the *E Mixolydian mode* (*E, F♯, G♯, A, B, C♯, D, E*) in the right hand and a dense voicing in the left hand that features a sonorous eleventh (*A*) in the middle. In bar 3, we dance around the tonic in the right hand with the *E♭ Ionian mode* (*E♭, F, G, A♭, B♭, C, D, E♭*) featuring an *E♭6 arpeggio* in the last half of the bar. The line ends in bar 4 with the *G♭* highlighting the major to dominant tonality change. In your own lines, try to call attention to the big changes in harmony by using the modes and chord tones to create efficient solo lines.

Ex. 3

3. Bossa Nova Comping

In **Ex. 3** we see a Bossa Nova comping pattern often used by Elias. Comping patterns in Bossa Nova are quite free, unlike the static patterns found in Cuban music. Here, we start our rhythmic phrase with two downbeats, then four off-beats. These syncopated stabs add gentle propulsion to the rhythm. Our voicings are in classic jazz piano style. The first two bars have a common Bill Evans shape with the harmonic motion of *min7* to third scale degree at the end of the first bar. Notice that the left hand contains the defining chord tones of the progression—*E♭* (the minor third) and *B♭* (the seventh)—which moves to the third of the next chord, *A*. In bars 3-4, the minor third (*A♭*) and flatted ninth (*C♭*) stay in the left hand as an interesting voicing of *B♭13♭9♯11* appears in the right hand at the end of bar 3. Try to find these interesting alterations in your own chords, but be careful to keep the harmony of the soloist and melody in mind to avoid clashes.

Ex. 4



4. Diminished Concepts

In **Ex. 4** we investigate the symmetry of the Diminished scale. Our first bar begins with a rather common *Bmin11* voicing much like the ones from previous examples. The right hand part arpeggiates the chord up to the thirteenth and that's where the fun begins! The right hand plays a pattern of major thirds descending by a minor third. Because the *A♭* diminished scale (*A♭*, *B♭*, *C♭*, *D♭*, *D*, *E*, *F*, *G*) is a symmetrical scale, whatever line you play can be transposed up or down in minor thirds as long as all the notes stay in the scale. Notice that this line will also work very nicely over *G7♯9♯5* chords if the scale is started a half step below its root, in this case *G*. The last two bars have a very simple ii-V progression ending on the *♯11* in the right hand.

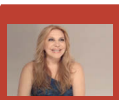
Ex. 5

5. Two-Fisted Fire

Ex. 5 is inspired by Eliane's two-fisted lines on "No Tabuleiro da Baiana." In this example, we simply double what the right hand is doing in a lower octave in the left hand. Sometimes, it's a nice change of texture to play two-handed lines to take a break from dense chord voicings and to add some punch to your solos. Here, the notes all come from the scales associated with the chords. In bar 1 we use the *G* ionian mode (*G*, *A*, *B*, *C*, *D*, *E*, *F♯*, *G*). In bar 2, we begin with an arpeggio up to the flatted ninth then back down and up on an *A* dorian Mode (*A*, *B*, *C*, *D*, *E*, *F♯*, *G*, *A*) before we use a slight chromatic embellishment to approach the *A* note of the last bar, first beat. The line then descends quite naturally down a *D* mixolydian mode (*D*, *E*, *F♯*, *G*, *A*, *B*, *C*, *D*) in the last bar. ♫

Practice Tip

"The biggest thing to notice about Eliane Elias' playing is how deceptively simple it sounds. It never overtakes her vocals and faithfully serves the compositions at hand with seemingly effortless chords and lines," says keyboardist and composer Brian Charette, who has performed and recorded with artists such as Joni Mitchell, Michael Bublé, and Rufus Wainwright. Charette won Downbeat magazine's "Rising Star Organ" award in 2014 and recently released the album *Alphabet City*. He also has a new book out entitled *101 Hammond B-3 Tips: Stuff All the Pros Know and Use*. Find out more at briancharette.com.



Video: Elaine Elias: The Making of *Made in Brazil*

Hear Brian play the audio examples from this lesson online.

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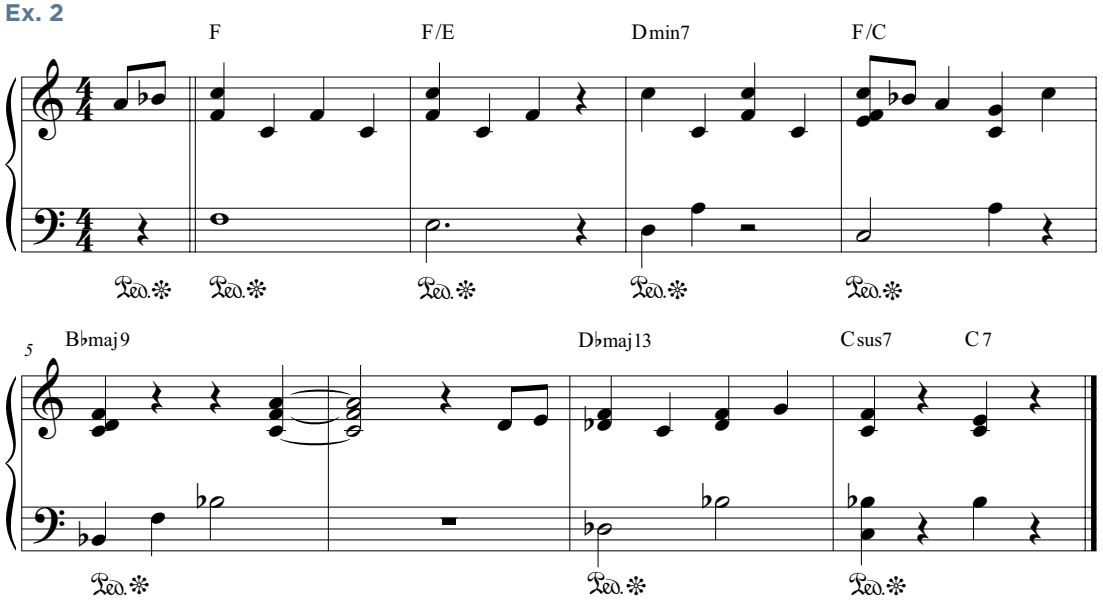
THE ART OF The Intro

MATT ROLLINGS

THERE ARE A MILLION DIFFERENT WAYS TO COME UP WITH PIANO intros. I often try to use a little information from the song at hand, like a nice motif that's not too complicated or a pattern that creates a feeling or mood that really sets the song up. You want your intro to sound like there could never be any other way for this song to start. Here are some tips on coming up with intros of your own:

Ex. 1

Ex. 2



1. The Song

Ex. 1 illustrates a verse of an imaginary song I created for this lesson. It's a bit of "old school" pop, with a few soulful, gospel shades thrown in. The last chord (*F*) would be the first bar of the chorus. I used a few signature chords, like the *G/B*, and the *B♭min6*, to give it some personality, and for material to draw on for intros.

2. The Pretty Intro

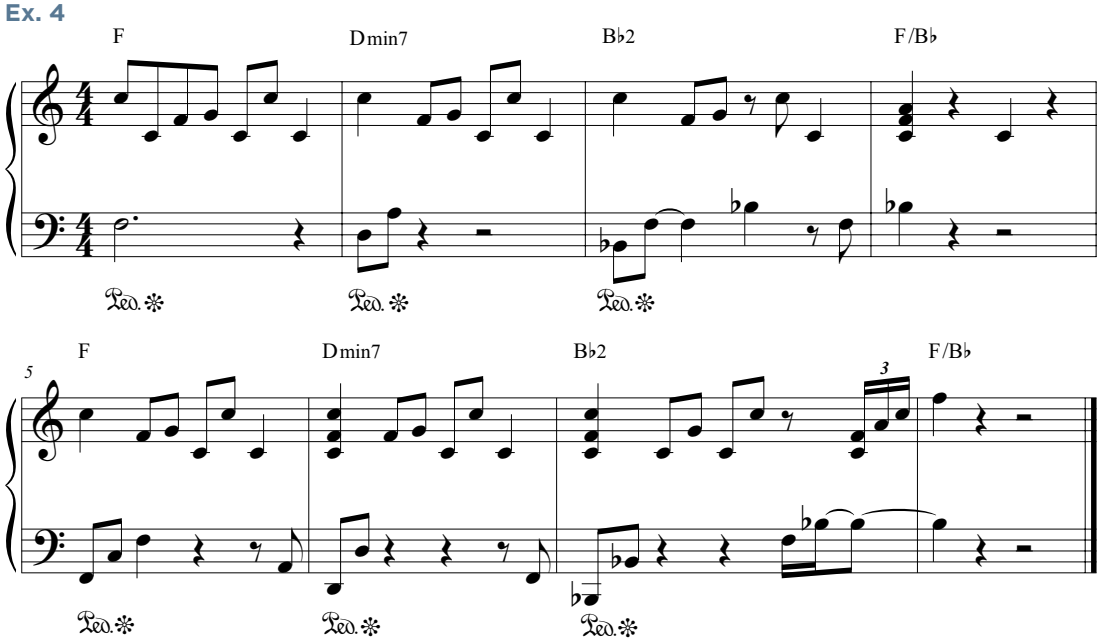
Ex. 2 is what I'd call a fairly standard "pretty" intro. This one doesn't necessarily use a lot of specific harmonic information from the song, but grabbing the *B♭min6* (here voiced as a *D♭maj13*) chord helps tie it in sonically. This type of intro would typically have its own theme that would be reiterated in the middle and again at the end of the song.

Practice Tip

"It's important to remember that your intros should always be in the service of the song," says Matt Rollings, an acclaimed keyboardist, composer, and producer based in Nashville. Rollings has performed on countless recordings and onstage with artists such as Lyle Lovett, Mark Kopfler, and Mavis Staples. More recently, he co-produced the new Willie Nelson album of George Gershwin songs entitled *Summertime*. Find out more at mattrollings.com.

Ex. 3

Ex. 4



Ex. 5

3. Gospel and Blues

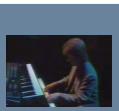
The intro in **Ex. 3** employs a gospel/blues feel. This melody could possibly be the ending melody of the chorus and part of the melodic "hook" of the song. It might be played as a turnaround at the end of the first chorus, and maybe again at the end of the song.

4. The Rhythmic Approach

Ex. 4 is a type of intro that might have other components playing along with it (e.g., a drum pattern or possibly a guitar doing a similar pattern). This intro is less about melodic content than it is about vibe and feeling. A sound is created with layers and motion that becomes a central component of the production.

5. Blues with Chord Cues

Ex. 5 is another blues/gospel intro that uses a few of the signature chord changes from our song. Note how the intro here highlights the progression *A7sus-A7/C♯-Dmin7-G7*. Try creating intros that illustrate the chords used in your own songs and performance repertoire. ♫



Lyle Lovett with Matt Rollings: "She's No Lady"

Hear Matt play the audio examples from this lesson online.

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A Hip-Hop KEYBOARD PRIMER

BY SAM BARSH

I PLAYED MY FIRST HIP-HOP GIG WHEN I WAS IN COLLEGE, AT A CLUB ON THE south side of Chicago with the trumpeter Maurice Brown. A few years after that, I began making beats at home and soon progressed into working regularly on the NYC hip-hop and R&B scene. Here are five key aspects to learning how to play keyboards that fit into a hip-hop context.

Practice Tip

"Though hip-hop was historically based around drum machines and sampling, live instrumentation is a big part of the music today," says Sam Barsh, a keyboardist, songwriter, and producer who has appeared on recent releases by Anderson .Paak, Ty Dolla $ign, and Eminem. Barsh co-wrote Aloe Blaac's Number One song "The Man" and worked on Kendrick Lamar's multi-Grammy Award-winning album *To Pimp a Butterfly*. Find-out more at sambarsh.com

1. The Laid-Back Eighth Note Pattern

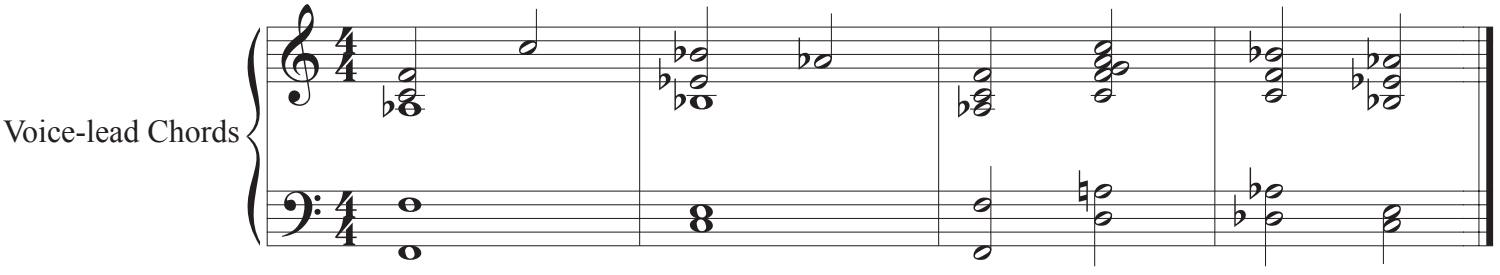
Ex. 1 illustrates a classic eighth note pattern that can add swagger to any groove. Though not an exact science, it can be played anywhere from just slightly behind the beat to all the way around a 32nd note behind it. This pattern sounds best using triads in the range of one to three octaves above middle *C*.

Ex. 1

2. Melodic Voice Leading

One of the ways I've been able to add interesting jazz chords into more commercial music is by sneaking them into a song's progression by way of melodic voice-leading, seen here in **Ex. 2**. To experiment with this on your own, treat the top note of your chord progression as its own melody, and let it guide you to fresh harmonic passing chords.

Ex. 2



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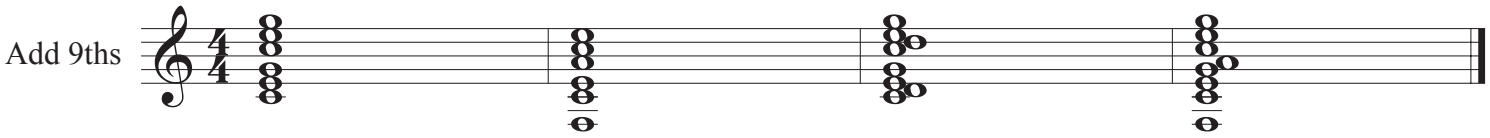
3. Adding Ninths

There is a fine line between playing thick, lush voicings and not altering the quality of a song's chords. Adding the *ninth* to major triads or major seventh chords almost always works, providing a thickening agent without making a progression sound different. Fit it between the root and third on triads, and try adding it in-between and on top of major seventh chords. **Ex. 3** shows the basic chords in the first half, and the chords with the added ninths in the second half.

Ex. 3



4. Key-Bass Technique 1: Passing Notes

Key-bass is an essential part of today's hip-hop and R&B. **Ex. 4** demonstrates how to utilize passing notes to capture the laid-back feel that fits in perfectly with many drum patterns. The passing notes here happen on beat 3 and the "a" of beat 4, just before the root notes. This is also a good technique for giving subtle motion to a simple bass line.

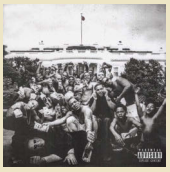
Ex. 4

5. Key-Bass Technique 2: Emulate an 808

In hip-hop, an "808 bass" refers to a tuned, electronic kick-drum sound with long sustain, originally introduced in Roland's TR-808 drum machine. There are many variations of this sound today, and it is ubiquitous in urban music, often replacing the bass or acting as both bass and kick drum. **Ex. 5** illustrates a typical 808 bass part. Find a "subby" synth-bass sound with a strong attack and long release to execute this in live settings. ♫

Ex. 5

Listening List—Hip-Hop Keys



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THE ART OF SYNTH SOLOING

Lyle Mays' Signature Synth Sound

BY JERRY KOVARSKY

WHENEVER ANYONE COMPILES A LIST OF THE MOST FAMOUS SYNTH SOUNDS, Lyle Mays' ocarina-like lead is certain to be in the Top 10. That's interesting, considering he never took a true solo with it: He used synths exclusively as orchestration tools. Yet the sound became his signature, and every few months I see people asking on synth and keyboard forums how to make it. Synthesizers designed since the advent of patch memory usually come with a preset paying homage to the sound. Yet far too often, they come close but don't nail it. So with Lyle's help, let's explore this beloved timbre.

A Bit of Research

When the original Pat Metheny Group was formed, Lyle started with acoustic piano, autoharp, and an Oberheim Four-Voice analog synth (see Figure 1). It was used sparingly on their first recording, and the classic sound didn't appear until their second release, *American Garage*, on the tune "The Search" in 1979. By the time of our first interview with Lyle in the

October 1980 issue of *Contemporary Keyboard*, he related that he had recently added a Rev. 2 Prophet-5 to his arsenal and was using digital delay (likely an MXR M113) on both synths, along with reverb. He re-created the sound on the Prophet, using both synths for many years. After constantly having to repair the Prophet (he had two), he finally replaced it with a Roland JX-10 in the late '80s, again re-creating the sound, and he used the JX through the rest of his time with the group. Somewhere along the way he sampled the Prophet-5 version of it into Pat's Synclavier, and he still uses those samples today, played using MOTU's MachFive software sampler.

Fig 1. Lyle's ocarina lead as he first made it using an Oberheim Four Voice, re-created here using Arturia's Oberheim SEM V software.

Fig 2. Lyle Mays' signature ocarina sound, as realized on Arturia's Prophet-V.

The Sound

Considering that Lyle had added the Prophet-5 by the time the album *As Falls Wichita, So Falls Wichita Falls* was recorded in September of 1980, it is most likely the Prophet-5 version of the sound that we are most familiar with from the tune "It's For You." So I'll explore it using that engine with the help of Arturia's Prophet V software (see Figure 2). The basics of the sound are very simple; detuned square waves (± 2 to 5 cents) with a relatively dark filter cutoff, with no real envelope shaping of the filter. Being an ocarina/flute-type sound it does not have a percussive attack, so soften your amp envelope's first stage to taste. Lyle has never used velocity control on the sound and chose to have the amp envelope settle down to a slightly lower level than the attack.

The secret to giving the sound its notable character is to use an envelope to create a slight downward pitch bend on one of the oscillators. Lyle stated that the concept for the sound was based on his recollection of playing in a flutophone ensemble in early elementary school. Whenever the group would start to play, half of the kids would get the note wrong, and then settle in when they heard what the others were doing. So this "disagreement of pitch" was what he wanted to recreate. Given the Poly-Mod design of the Prophet-5, this would have come from using the Filter Envelope to modulate FreqA, or the first oscillator (look at the top left of the synth in Figure 1 again). You want the pitch to start sharp of the note and settle down into it, retaining some detuning between the two oscillators.

Lyle was kind enough to share an isolated audio snippet of his sampled Prophet-5 version of the sound, which we have posted online to accompany this article. Sans the usual effects, it is very striking how prominent that pitch modulation is. You should experiment with the depth of the modulation and the decay time of the envelope to dial this "swoop" to taste. Be sure to have a long release on the modulating envelope so you don't hear any further pitch movement when you release the key.

Effects play an important role in the sound, and you want to create a wash of delay without any prominent repeats, so dial back the mix to create more of an ambient effect. Both Lyle and Pat used delays that could add a bit of pitch modulation to the sound, so a modulation-delay algorithm with the slightest pitch mod is truest to his sound. Using a straight chorus can be done in a pinch, but keep it dialed back. A touch of reverb and you're done! I should point out that just like when I discussed Jan Hammer's classic lead sound back in the March and April 2015 issues (available at keyboardmag.com), the sound was constantly tweaked for each recording. So it can get brighter, darker, and the amount of pitch sweep can change to taste and context.

Ideas for Building on This Foundation

Lyle mentioned to me that he often introduced a touch of pulse width modulation, which can be driven by an LFO. Just be careful not to go too far, so the sound doesn't lose its hollow characteristic. A shallow, slow movement can add a nice bit of life to the sound. In synths with sampled waveforms you can layer in any number of additional timbres to make the sound richer. Obviously ocarina, pan-flute, blown bottles and other wind-driven sounds can compliment it nicely, but you don't want them to overpower the square wave tonality, so blend them back. Airy vocal components can add nicely to the sound, dialed way back so they are felt more than heard. Any sound with a prominent attack "chiff" should be adjusted to lose that. You might be able to adjust the sample start point to just after this transient, or use a soft attack envelope to slightly fade in the sound.

If your synth allows it, routing velocity to the depth of the envelope that is modulating the pitch can be a nice way of interacting with that attack characteristic in a musical way. Set it up so your softest playing doesn't have much pitch swoop (little to no direct modulation from the envelope) and harder playing brings it in more prominently (by routing velocity to envelope depth). If you're staying true to Lyle's vision, your amp should have no velocity modulation, so the sound will stay at the same volume no matter your touch, only the pitch swoop will react.

Thanks Are in Order

"It's been endlessly flattering to see new synths come out with my name in the patch list," said Lyle. "But I have to say that no one ever nailed the sound." Now with his help we all can get closer and pay musical tribute to his enduring sonic legacy. And by the way, you do know he also plays piano, right? ♫

SOUNDCLOUD

Hear audio examples, including Lyle Mays' own Prophet-5 sounds.

keyboardmag.com/may2016

What's That Jack For?

THE HIDDEN POWER OF EXTERNAL INPUTS.

BY FRANCIS PRÈVE

NEARLY EVERY MODERN ANALOG MONOSYNTH INCLUDES A jack on the back panel called "Ext In" and whenever the topic comes up in my workshops and classes, students often ask, "What's it for?"

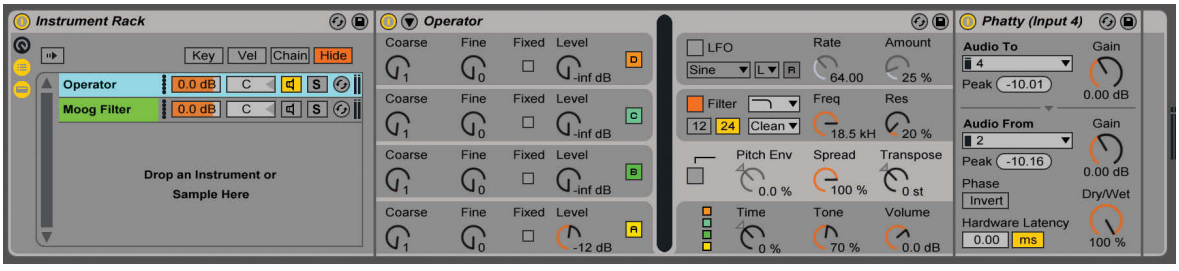
As it turns out, the External Input is arguably one of the most powerful features on an analog synth, because it allows you to route any audio signal into the synth's filter and amplifier engines and use it in place of (or in addition to) the on-board oscillators. This month, we'll take a look at two useful techniques for making the most of this often overlooked feature.

Method 1: Many keyboardists think the ability to mix and match filters and oscillators is only available in modular rigs, but thanks to the external input, that's definitely not the case—especially if you have your DAW controlling your hardware synths via MIDI. If so, combining two synths in your sequencing software is easy, just copy the same sequence to two different tracks— each routed to a different synth—with one of those synths including an external input for its synthesis engine.

For example, the Arturia MiniBrute includes an external input that has its own volume fader on the synth's mixer. As a result, you can use any other synth in your rig as the oscillator bank. Just set the source synth's filter cutoff to max and use a simple gated amplifier envelope (with extended release time, if appropriate). Then plug the output of that synth into the external input of your "processing" synth (in this case, the MiniBrute) and you're in business. From there, send the same sequence to both synths, tweak the filter, its envelope, and the amp envelope of the MiniBrute, and voila, you've got a hybrid synth without the fuss of a modular rig. (Note that this will also work in a live context by sending MIDI data from your controller, when set to the same channel of your paired synths.)

Method 2: The external input is also a great way to warm up your softsynths. Both Ableton Live and Apple Logic include software effects modules that can route signals from a free output on your audio interface to your external processing synth, then return the audio from the synth's output to a second free input on the interface. Logic's module is called I/O (you'll find it in the Utilities effect menu) whereas Ableton's is called External Audio Effect. In either case, just place one of these devices after your softsynth, with its oscillators, filter, and amp envelope set up as described above, and route the same MIDI data to both the softsynth and processing synth. If you've followed the steps correctly, you'll now have real analog filters and VCAs processing the tone generators of your softsynth, which can really warm up the sound of digital sources.

In this month's web-audio clips, I included examples of the Arturia MiniBrute filtering a Moog Little Phatty, then the Moog filters applied to the Arturia oscillators, and finally Ableton's Operator being filtered by the Moog. All three have distinctly different sounds, each with its own character. So check the back panels of your hardware synths and you may well be ready to roll with this handy trick. ♫



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Audio examples.

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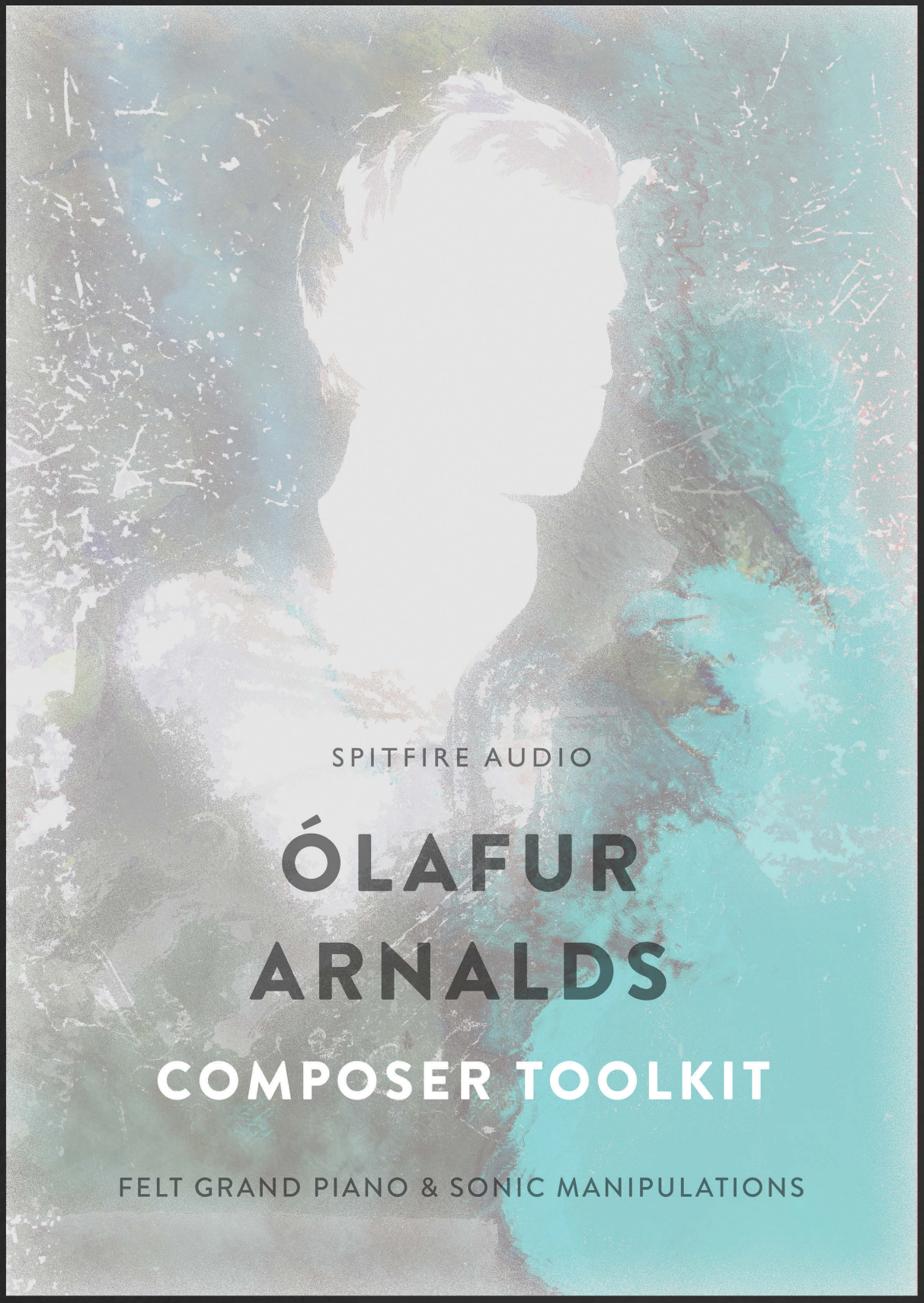
SUPERIOR SAMPLING SINCE 2007

SPITFIRE AUDIO



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YAMAHA Montage

Keyboard K KEYBUY AWARD

BY STEPHEN FORTNER

THE YAMAHA MOTIF IS A TOUGH ACT TO FOLLOW. THROUGHOUT ITS 15-YEAR run and four generations, it became the synth workstation you'd find in a majority of studios, weekend gig rigs, and professional touring backlines. With the most recent Motif now over five years old (the XF—our June 2011 review is available at keyboardmag.com), the question that has fueled much speculation is: What sort of flagship, pro-level synth will Yamaha create next? At this year's NAMM show, the company declared the new Montage to be at once a worthy successor, a massive upgrade, and a complete departure; and not only is that all true, but also the Montage's sound quality is so good, and its real-time performance control so engaging, that it may well be one of the most influential synthesizers of the next 15 years.

True to Its Name

For starters, the Montage is two synths in one, each with 128 stereo voices of polyphony. AWM2 (sample playback-based synthesis) has been expanded with about ten times the factory waveform ROM as the Motif XS and XF. Though there's a good deal of legacy sonic DNA, there's also plenty of material from new sampling sessions, including the Yamaha CFX piano, and a bevy of orchestral sounds recorded by Seattle Symphony members. In addition, 1.75 GB of non-volatile Flash memory is built in for loading, programming and wave data. The Montage is fully backward-compatible with the Motif XF, so if you've invested in XF expansions such as the Chick Corea Rhodes, you're in luck. They'll load much faster, too.

Then there's the FM-X engine, Yamaha's most sophisticated implementation of FM synthesis to date. If you remember the once-misunderstood but now coveted FS1R synth, it's like that on steroids.

Compared to any Motif, the front panel is a spaceship, with backlit buttons, the pulsating SuperKnob, rotary encoders with LED position-indicator collars, LED "ladders" for the faders, and a color touchscreen that, in a big improvement over the Motif XS/XF, refreshes instantly when you change something.

Central to the Montage's story is Motion Control, which just may be the most sophisticated and interactive approach to modulation and animation we've seen on any self-contained hardware synth. It comprises a number of things: The SuperKnob (or an attached pedal) is a highly programmable "macro" that can sweep multiple settings at the same time. Then, Motion Sequences can automate settings, including the SuperKnob itself, in sync with internal or external tempo. Still another dimension of control involves Scenes, which recall eight snapshots of virtually all settings including the states of the SuperKnob, Motion Sequences, and arpeggiator.

Also under the Motion Control umbrella is a sidechain/envelope follower, which you could use for anything from keying sounds to an internal kick drum for a dance-floor pumping effect, to making external audio (such as a mic or drum loop) a modulation source for a vocoder effect. What's more, "live" incoming audio can drive the Montage's tempo.

Speaking of the arpeggiator, it offers eight switchable slots for phrases, and different parts in a multi-timbral Performance can each use their own sets of eight. As on the Motif series, the term arpeggiator is an understatement not only because of the number of simultaneous tracks but also because a huge variety of polyphonic musical phrases are on hand and labeled for the sort of sound they're best at playing. Currently, however, you cannot create your own phrases onboard (though you can import phrase data from the Motif XF).

Effect slots have been expanded to 16 stereo dual inserts plus bus-based (System) and overall (Master) effect paths, and they employ Yamaha's Virtual Circuit Modeling for realistic emulation of vintage compressors, EQ, reverbs, and such. The takeaway is that you could have dual insert effects on every part of a multitimbral Performance without having touched your common downstream effects.

The Montage functions as a USB2 audio/MIDI interface sending 32 (16 stereo) audio channels to your computer at 24-bit/44.1kHz resolution or eight (four stereo) channels at up to 192 kHz, plus whatever is plugged into the stereo audio input—which now has a dedicated gain knob and is switchable in a menu between mic and line level.

Yamaha touts improved converters and analog output circuitry, and I have to agree that the Montage sounds smoother and more hi-fi overall than the Motif XF—and the difference is more than subtle.

As for that departure I mentioned, you won't find a multitrack song or pattern sequencer in the Montage. There are transport buttons, but these control a real-time recorder that simply captures everything your fingers and the machine are playing. It's quite adept at this, but feature-wise it's bare bones, lacking any sort of track editing or even a loop-record mode as of the firmware version (1.00.2) in my review unit. That's not to say the Montage can't sound like a bunch of tracks are playing; many factory Performances work the arpeggiator and Motion Control to create highly interactive musical arrangements.

Architecture

The Montage is effectively always in multitimbral mode, so the mixer-like Performance screen is the new "home" (see Figure 1). Motif users might be shocked to find there's no longer any such thing as Voice mode. Don't worry, though, about "How do I just play a piano?" Many Performances are devoted to a single instrument sound, and the Category Search function makes it easy to find what you want.

A Performance can host up to 16 Parts. A given Part can use either the AWM2 or the FM-X sound engine, and you can mix and match these freely in a Performance. Touch the sound name on a Performance's mixer strip, and you can immediately look for Part starters that, for purposes of building things like splits and layers, might as well be Voices.

With AWM2, a Part is further composed of eight Elements. An Element is really an entire subtractive synthesis chain, consisting of a sample-playback oscillator, a multi-mode filter, pitch and volume envelopes, its own LFO, and even a dedicated multi-mode EQ. The Expanded Articulation from the Motif XS/XF is on hand as well. In a nutshell, this lets you apply conditions for when and how an Element "speaks," such as if you play legato or press an assignable button. Just one of many uses is making acoustic and orchestral sounds more realistic.

An FM-X Part can employ eight operators, arrangeable according to 88 algorithms. Each operator has its own envelope and a variety of waveforms. FM-X Parts also have their own filter and pitch envelope.

I know—we need to get into playing this thing, but I really wanted to call attention to how much editing depth is under the hood, not

Snap Judgment

PROS Stellar sounds, especially new concert pianos and orchestral instruments. Hi-fi audio quality. Motion Control offers unprecedented modulation possibilities, all in a way that's incredibly musical and playable. Highly interactive, multi-timbral Performances.

CONS No way to create user arpeggiator phrases onboard. Some Motif users may miss song and pattern sequencing. Needs a Save prompt if you're about to switch sounds and lose your edits.

Fig. 1: Here's what the Montage's new Performance home-screen looks like. To drill deeper in and edit an individual Part, simply touch it.

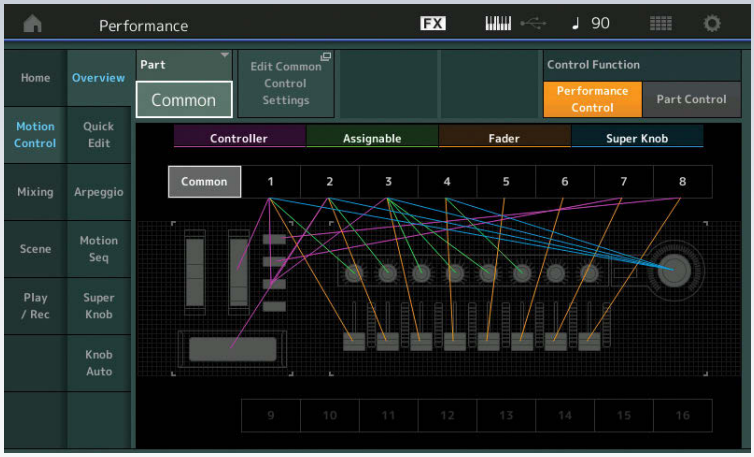

Fig. 2: This is an overview of what the SuperKnob (far right) and other controllers are doing. Selecting a number instead of Common shows mappings for individual Parts in a Performance.

to mention power to play lots of sounds at once without hitting an audible polyphony ceiling. And all that is even before realizing you can modulate it all via Motion Control. Nearly every parameter, from the deepest sound edits to effects to the Motion Control settings themselves, is saved at the Performance level. You can't overwrite factory Performances, but the ample user memory for storing your own is retained with the power off. One gripe: There is still no "are you sure?" dialogue to prevent you from losing your edits when switching sounds from the main Performance screen: So don't do that.

There's also a level above Performances called the Live Set, which is similar to Quick Access on a Kurzweil or Set Lists on a Kronos. This lets you select Performances from a grid and step through that grid with a footswitch: You can see an example on the screen of the opening Montage photo.

Sounds

Here's where the rubber really meets the road. The Montage sounds extremely good across all sound categories. As always, we have room to highlight just a few standouts, but their realism and musicality are representative of nearly every sound in the instrument.

In spite of the "all Performances all the time" approach, nothing forces them to sound "multitrack." In fact, multiple Parts can work together to craft a single instrument sound, which is precisely what the new pianos do. CFX Concert, for example, uses four AWM2 parts, which means it can draw on up to 32 Elements for different velocity layers, alternate samples, and the like. It's really a new zenith in how realistic and playable a "workstation piano" can be. I'd say the CFX is more contemporary and focused whereas the Bösendorfer Imperial Grand is more woody and classic, inasmuch as such adjectives aren't hopelessly subjective.

In the vintage keys department, the Gallery Performances use the Scene buttons to call up variations based on different electric piano decades, Clavinet pickup settings, and so forth. There's tons of attitude and funk here, not to mention a Part devoted to mechanical noises. Tonewheel organs are generally long on vintage character, and All 9 Bars! offers full drawbar control on the faders. I do wish the accompanying Leslie effect were as happening as the rest of the Montage, but the organ sounds themselves are good enough that with the aid of a better rotary pedal (or real Leslie), you could use it as your main source of B-3 sounds all night. In fact, you could program your organ Performances to use the alternate audio outputs for just this purpose.

The orchestral sounds blew me away. As mentioned, these are home to a sizable chunk of the new sample content, and the recording quality is impeccable. Throughout, the SuperKnob and other controllers are assigned in musically useful ways, such as morphing the Seattle Sections strings from diffuse to focused, fading in ensemble support behind a solo oboe, or smoothly changing the Cathedral pipe organ from sparse flutes to a wall-shaking tutti. With extra octaves on the SuperKnob and trills and fall-offs on the assignable buttons, Pop Horns Bright is as apt as anything I've tried at helping the keyboard player nail horn-band covers. Everywhere, the usual giveaways that you're playing bowed- or blown-instrument sounds on a keyboard are virtually non-existent. True, there are things only high-end orchestral software libraries can do, but the Montage comes the closest of any hardware synth yet to providing that feel—and in a way that's more immediately playable.

Anyone who still thinks FM synthesis sounds harsh should be won over by the Montage's FM-X engine. While there are plenty of examples of the crystalline harmonic landscapes FM originally grabbed attention for (some using Motion Control to PPG Wave-like effect), you also have sounds like FM CS80 Brass, which has warmth you'd swear was analog. Of course, if harsh is what you want, FM-X can oblige.

As for synth sounds in general, the Montage can sound as analog—or not—as you please. The huge complement of leads, comping sounds, basses, and pads runs the gamut from decidedly retro to aggressively experimental, with no shortage of hybrid Performances that combine these moods.

A big improvement over the Motif is Seamless Sound Selection, known more generically as patch remain. Sustained notes from your current Performance won't be cut off when you switch. Some other brands, notably Kurzweil, have had this for years, but Yamaha's execution is the smoothest I've yet heard in terms of not hearing bumps in the audio due to effects changes.

Bottom Line

Impressive sound quality and unheard-of performance control put the Montage in a class by itself.

All prices are MSRP.
Montage6: $3,499
Montage7: $3,999
Montage8: $4,499
yamahasynth.com

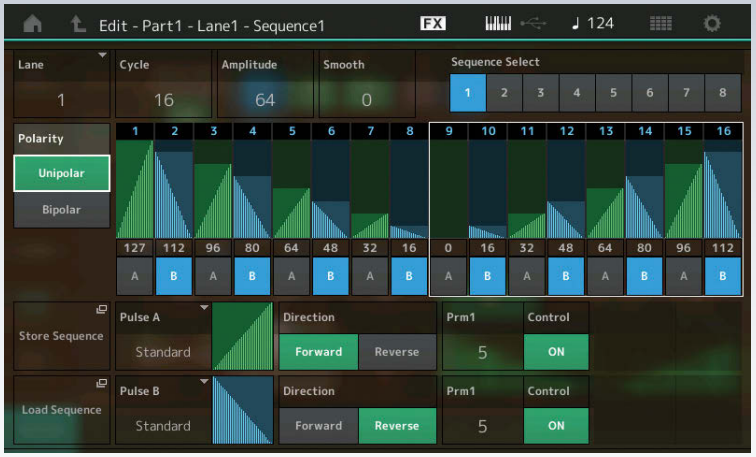

Fig. 3: Motion Sequences provide complex automation of multiple sound settings at once. This is a visual representation of how fine-grained the step-by-step control can get.

Motion Control

Here's the thing about Motion Control: It's insane. Just about every parameter in the machine, from something as obvious as the volume of Parts in a Performance to deep Element-level edits can be a modulation target for the SuperKnob and Motion Sequences. And you can do a heck of a lot of this at once, with broad strokes or fine.

The SuperKnob directly controls the eight other knobs when they're in assignable mode. Like on the Motifs, these also have dedicated rows of buttons for things like overall filter and envelope, arpeggiator behavior, global effects sends, and the like. Switching to one of these won't disrupt what the SuperKnob is doing. You can set the range and polarity for each knob, so one gesture of the SuperKnob could sweep one knob up its full value range while taking another down through the middle third of it. In turn, each assignable knob can affect multiple parameters. So what we have here are eight control buses or macros, all under the control of the "meta-macro" SuperKnob, which can be mirrored from a continuous pedal if you want to keep both hands on the keys (see Figure 2).

Musical uses range from the very simple, such as crossfading instruments on the delightful Two Acoustics guitar, to the very complex, such as genre-bending an arpeggiator-driven EDM Performance from chill and minimal to glitchy, post-dubstep mayhem. In fact, reverse-engineering some of the dance-oriented Performances, such as DJ Montage, is a great way to get your head around everything SuperKnob programming can do at once.

As an aside, although I doubt that EDM producers are the target market for a synth like the Montage, a lot of the Performances in this area have surprising street cred, marshaling the Scene buttons and SuperKnob to generate song sections, rises, and whooshes, and bass drops. In fact, in a blind test in a roomful of candy kids, I'll bet most of them would guess that behind the curtain was someone rocking Ableton Live.

Creating animation that's more fine-grained still, and that doesn't even require any manual controller moves, is where Motion Sequences come in. They're sort of a hybrid of how you'd automate plug-in settings in a DAW, and patching a step sequencer to multiple destinations at once in a modular synth—but that's oversimplifying things a bit. Sequencing things other than notes isn't a new idea in synthesis, of course, but the Montage's implementation is mind-bendingly deep.

Again, multiple settings at any level in the machine can be a destination. One way this can happen is simply to automate the SuperKnob with a Motion Sequence. You can deploy up to nine lanes in a Performance. Lanes are the containers that have the most direct relationship to whatever the sequence is controlling. A sequence has up to 16 steps (yes, prog rockers, you can set odd lengths), and a lane can host up to eight alternate sequences, which you can switch from the front panel while playing. And while each step can simply hold its controller value until the next step (exactly how you'd think it would be done), it can also travel between two values according to a curve, which Yamaha calls a Pulse.

Here's how it works: Imagine an invisible hand riding whatever parameter the sequence lane controls. Within the time-slice of one step, that hand could move smoothly and linearly, or be jerky and abrupt, or hit its high value mid-step and then retreat, or behave in other ways depending on which of the 18 preset Pulses you choose. You get two pulse shapes (A and B) per sequence, and to change things up, you can select which one each step uses and, of course, set the step's maximum and minimum value (see Figure 3). Of course, lots of useful factory sequences are pre-programmed.

In musical terms, a Motion Sequence could do something as simple as rhythmically stair-stepping a filter like in the organ intro to the Who's "Won't Get Fooled Again." Sample-and-hold or wave sequencing effects? No problem. If you start thinking of Pulses as building blocks to create a larger shape, Motion Sequences can act as highly customizable LFOs or envelopes. Sequences can loop or not, and free-run or sync to tempo, in the latter case partaking of the same swing and time-unit multiply settings as the arpeggiator.

Now ponder how many Motion Sequences you can use at once and how they can interact with the SuperKnob, Scenes, and arpeggiator. As complex as the underlying sound engine is, I can't overstate how hands-on playable the results are. These range from some of the most fun "instant soundtrack" fare I've heard in a keyboard to evolving counterpoints whose voices seem to waft around and pass through each other. Check out the Performances in the Live Set labeled Motion Control for examples. I'll leave you a case of protein bars and check on you in a month.

More than the Sum

Just wow. In terms of sound quality and authenticity, across the board but especially with acoustic instruments, there are two other times in my life I've experienced this kind of saucer-eyed awe playing a hardware synth: when I bought my first Kurzweil K2000 in 1995, and when I got to spend an hour with a full-spec Synclavier around 1986. As for 2016-level expectations, the Montage exceeded mine.

It's hard to find a comparison for Motion Control. Other things certainly use the same concepts, like macros and automation, but the way the Montage puts modulation and animation right at your fingertips is unique. Maybe it's closest to running multiple instances of Omnisphere, only with shoulder-devil versions of Brian Eno, Deadmau5, and John Williams weighing in on what to do next.

One could argue that Yamaha missed an opportunity by not building in even more sound engines, Kronos-style, because their back catalogue has great fodder such as the VL-1 modeling synth and the virtual analog AN-1X. It's a valid thought, but Motion Control lets you interact with the sound in a way nothing else currently does, and the AWM2 and FM-X engines are both so deep as to generate any sound you might need, with fidelity that just may edge the Kronos a few feet down the bench at this point.

Overall, the Montage does so many things so well, and combines them in a way that's not merely novel but musically inspiring, that it really amounts to a new category of synthesizer. While the industry ponders what to call that, we'll call the Montage an obvious Key Buy winner. ♫

We go hands-on with the Montage!

keyboardmag.com/may2016

Fig. 1: On its own, the Roland A-01 module provides a wealth of MIDI connectivity along with an integrated step sequencer and 8-bit synthesizer.

Roland
A-01K

BY FRANCIS PRÈVE

WHEN IT COMES TO EQUIPPING YOUR STUDIO, A MIDI INTERFACE IS ONE OF the least glamorous purchases you can make. So when Roland introduced the A-01 as an addition to its Boutique line of products, it came as a bit of a surprise. That is, until I read the specs.

In addition to an extensive array of MIDI functions, amenities such as CV/gate outputs and Bluetooth connectivity are dutifully checked off, but Roland didn't just stop there. Instead, it threw in an adorable 8-bit synth and a handy step-sequencer to boot, then bundled it with the K-25M mini-keyboard dock, and actually made one of the dullest studio tools *fun*.

The Module

The A-01 module is housed in the same metal and plastic case as the rest of Roland Boutique series, so the whole package feels quite sturdy. The front panel features a big, easy-to-read LCD and an assortment of backlit knobs and buttons that make the unit look more complex than it actually is. I had the A-01 up and running with both the controller features and built-in 8-bit monosynth without having to crack the manual until much later in the review process. The module also includes a pair of ribbon controllers that are capable of some nifty tricks, thanks to the A-01's comprehensive MIDI implementation.

The back panel includes 5-pin MIDI I/O, 3.5mm CV and gate outputs, a micro USB port and a headphone output for the synth. Roland doesn't include a micro USB cable with the synth, so make sure you have one handy when you unbox the unit. That said, batteries *are* included.

The A-01 is available both as a solo module and as the A-01K bundle, which includes Roland's K-25M mini keyboard ($99 street on its own). The functionality is the same for both versions, so if you're just planning to use the A-01 as a flexible interface for your DAW or as a DIN-based MIDI controller, the module is all you'll need.

Snap Judgment

PROS Converts DIN and USB MIDI to CVs and Gates. Dual ribbon controllers and soft knobs. Adjustable fine-tuning and scaling. 8-bit synth. Bluetooth MIDI. 16-step sequencer. Includes K-25m mini-keyboard.

CONS Micro USB cable not included. No audio over USB. Hz/V CV standard not supported.

Control Features

In addition to serving as a USB-to-DIN MIDI interface, the unit's four backlit knobs and dual ribbon controllers can be assigned to any MIDI continuous controller (CC) number, as well as

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G Zoom F8 Multi Track Field Recorder
#ZOF8
$999.99

H Apple 16GB iPad Air 2
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$489.00

I Shure MV51 Digital Large-Diaphragm Condenser Mic
#SHMV51
$199.00

J Moog Mother-32 Semi-Modular Analog Synthesizer
#MOM32
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K RME Babyface Pro 24-Channel 192 kHz USB Audio Interface
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L Elektron Analog Keys 37-Key 4-Voice Analog Synthesizer
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Fig. 2: The A-01 is equipped with Roland's Boutique Series K-25m keyboard for under $400.

pitch bend, Channel Aftertouch and even Polyphonic Aftertouch, with selectable note number for the data. What's more, there are four programmable SysEx slots that can be customized to send unique messages via the knobs and ribbons. That is, if you're comfy with checksums and other MIDI minutiae, because the SysEx features are so deep that Roland includes a second, supplementary manual for them. There are also options for customizing the bank select MSB and LSB values, if you're interfacing with a synth that goes beyond MIDI's base 128 preset protocol.

For most users, the focus will be on using the knobs for standard applications, such as adjusting synth parameters. That's why the dual ribbons are such a nice bonus, as their behavior can also be tailored in ways that allow you to use them as faders. By activating their Hold parameter, the value can remain at the point set when you lift your finger off the ribbon, rather than snapping back to the default position. You can also specify either ribbon to output MIDI note data to the internal synth or to outboard gear, with assignable key and scale for Theremin-like swoops.

As the iOS ecosystem explodes, Bluetooth MIDI has become an increasingly important feature for controllers. The A-01 supports the protocol and I had zero problems pairing it with my iPad Air: Everything worked beautifully.

The A-01's CV and gate outputs adhere to the 1V/octave standard of most Eurorack modules (including Roland's System 1m, System-500-series, and AIRA-series modules), which makes them suitable for interfacing with vintage synths or modular gear. The source for their output can be the keyboard, incoming MIDI data (with channel specification), the sequencer, or all three at the same time.

Roland included parameters for fine-tuning both the voltage and overall keyboard scaling, which is a handy when working with analog oscillators that go a tad sharp or flat at their extreme octave ranges. The A-01 worked like a charm on the synths I used for testing and even tamed an out-of-tune unit that had a tendency to go flat in its upper ranges.

8-bit Synth

The A-01's 8-bit monosynth is a nice little bonus for fans of dirty digital sounds. It is a bare-bones affair, with a single oscillator that sports saw, square, PWM and noise options followed by a multi-mode resonant filter with lowpass, highpass and bandpass modes. As for modulation, there's a single ADSR and LFO, assignable to pitch, cutoff, or pulse-width, which allows for the nifty trick of pulse-width modulation with random, square, or sawtooth waves.

Despite its simple set of parameters, the synth has a quirky, aggressive sound that is well suited to synth-pop and indie dance genres. It's also handy for quickly ear-checking the tuning of any voltage-controlled synths you're controlling with the A-01. Because the module doesn't support audio over MIDI, its sound won't show up inside your DAW as it does with the other Boutique modules. But that didn't stop me from whipping up a six-pack of example loops that can be found at keyboardmag.com with this review.

And a Sequencer

I got so caught up in the A-01's controller features that when I stumbled across its 16-step sequencer as I scrolled through its parameters, I must admit, I smiled. Its output can be assigned to the internal synth, external MIDI, or the CV/gate, which also allows the CV to control *any* parameter with a CV input, such as filter cutoff or synchronized oscillators.

Programming the sequencer was a bit fiddly, but that's the case with nearly all step-sequencers that don't include dedicated knobs for all events. However, once your sequence is programmed, the A-01 is capable of some nifty performance tricks, such as changing sequence step length, playing only odd or even steps, adding swing, and reversing or randomizing the sequence. Like the 8-bit synth, it is a terrific bonus.

A-01K, A-OK

The A-01 is like a Swiss Army Knife for modern studio rigs of all sizes. Its MIDI features are shockingly in-depth and, like Star Trek's universal translator, it's capable of interfacing with pretty much any type of synth, whether it's a vintage Moog or an iPad Pro.

The 8-bit monosynth and step-sequencers are wonderful additions that make it loads of fun as a standalone unit. And when paired with the K-25m keyboard in the A-01K bundle, it is supremely portable too. If you're looking for a synth interface that can tackle pretty much everything, this is the unit you've been waiting for. ♫

Bottom Line

Perfect setup for integrating MIDI with CV-based and Bluetooth gear.

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SPITFIRE AUDIO

Hans Zimmer Piano

BY STEPHEN FORTNER

HIGH-END VIRTUAL PIANO LIBRARIES HAVE BEEN A PRETTY STABLE PRODUCT category for several years now, with go-to players like Ivory and Pianoteq providing versatility, and various "personality pianos" (e.g., Native Instruments The Giant) capturing single instruments that have a unique story. With Hans Zimmer Piano, Spitfire Audio is looking do both, while at the same time elevating the technical art of sampling an order of magnitude. Our verdict: It's a success on all counts.

The source piano for this Kontakt Player-based instrument is a Steinway D that resides in AIR Studios, London. It's long been a favorite of composer Zimmer for scoring sessions and simply playing for enjoyment. Not only does the virtual version offer four mic positions—from very close to a position intended for use in rear surround channels—but you get multiple options for which mics occupy each of those positions. The resulting tonal variety is such that I could use HZ Piano for whatever musical mood a song required, whereas before I would have been asking myself which of my libraries was right for the job. That this single piano can behave like a dozen or more is a testament to what's possible when the developers really know their recording techniques. Plus, since all that variety is "baked in," I found myself reaching for EQ and effects barely at all, whether I wanted the piano to cut through a mix or snuggle down into it.

I'll leave you to Spitfire's website for backstory about how painstaking the sampling process was, but my ears confirm one of their claims in particular: Zimmer directed extra attention to soft and medium velocity ranges, and this pays huge dividends in terms of both straightforward realism and emotional nuance. Not to say this is a "dark" piano at all—brighter, harder strikes are crystal clear with no hint of stridence. *Consistency* is also unparalleled; across every mic combination I tried, and across the entire pitch range and every velocity level my fingers are capable of resolving, there were no weird notes where the response profile was a little different. There are even distance-compensated sample sets that maintain phase coherence between mic positions.

With a sampled instrument this ambitious, a developer is inevitably going to push the system-requirements envelope. HZ Piano requires 211GB of drive space but headroom of about 400GB during installation. Spitfire can ship it to you on a hard drive, but one that's for installation and backup, not streaming. (You do get two licenses, say, for desktop and laptop use.) For playing more than one mic position at a time on a laptop, I recommend at minimum a highly-rated SSD connected via Thunderbolt or at least USB3—but you can still cause dropouts here with intentional "torture test" playing. For truly worry-free blending of all those mic positions with lots of pedal-down note density, put on your big-composer pants and install it on a striped RAID made of SSDs. If you've been waiting to upgrade your storage infrastructure, the sonic rewards of HZ Piano are the best reason you'll get this year.

Hans Zimmer piano is as inspiring to play as it is technically and sonically flawless. The inevitable question: But is it an Ivory killer? I'd say no more than a Bugatti Veyron (to which Spitfire's marketing likens it) is what you drive instead of a Tesla Model S. The latter does everything well and hyper-efficiently while still making you the envy of the block; the former is what happens when no expense is spared. Now imagine if the Bugatti only cost a little more than the Tesla, and you just might seriously need a larger garage. ♫

Snap Judgment

PROS Absolutely gorgeous sound. Very consistent harmonic and dynamic response across full ranges of pitch and velocity. Breaks between velocity layers are imperceptible. Multiple mixable mic positions include sample sets for phase-aligned blending.

CONS Worry-free performance requires pro-grade storage and bandwidth.

Bottom Line

The most ambitious software piano instrument yet conceived.

£299 direct (about $449 U.S.)
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Korg
IDS-10 FOR IOS

BY FRANCIS PREVE

ORIGINALLY RELEASED IN 2008, KORG'S DS-10 micro-studio for the Nintendo DS quickly gained a cult-like following—especially in Japan—thanks to its combination of dual monosynths and a barebones analog drum machine. In a way, its clever design and real-world usefulness were precursors to our current mobile production universe. So it comes as no surprise that Korg would port the underlying technology to iOS, adding a bunch of cool new features and a few unusual limitations that keep it a little *too* true to the original.

Snap Judgment

PROS Dual mono synths with two oscillators, multimode filters, semi-modular modulation routing. Drum kit has editable analog-style instruments. Flexible vocoder and voice synthesizer. Integrated sequencers, mixer, effects. UI compatible with iPad resolutions.

CONS UI is a tad cramped on iPhone 5s. No AudioBus or Inter-App audio.

Bottom Line

Daft Punk on your iPhone.

$19.99
korg.com

Like the DS-10, the iDS-10 is based on two MS-20-like monosynths (complete with virtual patchcords), an analog drum machine with editable sounds, and an integrated pattern sequencer. Expanding on that foundation, the iOS version ups the ante by including a combination vocoder/speech synthesizer that sounds fantastic and is clearly inspired by the robotic voices in Daft Punk's classic dance hits.

The design of each synth is quite flexible, with some very well-implemented amenities that give them more sonic range than you'd notice at first glance. For example, while the voice architecture is a straightforward dual-oscillator-plus-multimode-filter affair, each oscillator is slightly different. Oscillator one includes pulse-width control, while oscillator two offers extremely wide tuning options. Moreover, each oscillator features a different noise type, white noise and bit-crushed digital noise, respectively. These details are easy to miss, even if you're familiar with synthesis, making the iDS-10 great fun to explore.

Sliding the synth panel to the left reveals a baby modular section with control inputs for VCO pitch (both summed and individual), PWM for VCO 1, cutoff, and VCA. Modulation sources include an LFO with four waveform outputs, the ADSR envelope generator, and VCO 2, which is great for harsh FM sonorities. Each synth also sports discrete effects, including delay, reverb, chorus, and EQ.

The drum synth includes kick, snare, hi-hats, a tom and a percussion synth. Each has its own set of parameters, adding flexibility from classic 808/909 sounds to more exotic IDM options.

The vocoder is a real treat, and for some producers it could be worth the price of admission. It can function in two modes, speech synthesis and sampling, so you can either input text or sample your own voice (or any sound the iPhone mic can capture) for use as the modulator source. An array of vocoder parameters gives the section a lot of sonic depth, too

Gluing everything together is a pattern-based sequencer with an easy-to-understand grid editor for each instrument. Sequences can be programmed in step mode or real time, with nearly every parameter offering straightforward automation by twisting knobs in Record mode. You can also constrain the synths to specific keys and scales and create custom lengths and tempos for each pattern. And Korg manages to keep everything straightforward and intuitive. I didn't need the manual once during my tests.

iDS-10 is great little doodle pad for iPhone 6 and iPad users looking to kill time on the subway or in coffeehouses. Though it's not yet compatible with Audiobus or Inter-App software, you can export creations via SoundCloud, AudioCopy, Dropbox, and iTunes File Sharing. Since iDS-10's original release last winter, Korg has released version 2.0, so new features are always on the way. The vocoder alone is still worth $20, especially for dance music producers. ♫

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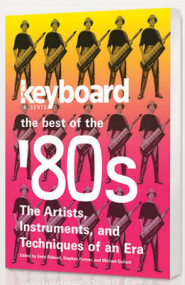

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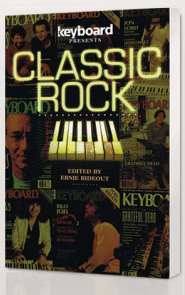

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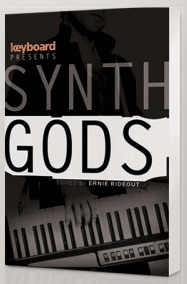

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5 THINGS I'VE LEARNED ABOUT PLAYING HIP-HOP KEYS

BY SAM BARSH

AFTER STUDYING CLASSICAL MUSIC AS A CHILD AND BEING IMMERSED IN the jazz scene for years, I began working in the hip-hop/R&B world. Though there is some overlap between genres, there are certain skills that are specific to playing modern urban music. Here are five of the most important ones

1. Know Your History

Hip-hop has been around for 40 years and R&B has been around for much longer, and both genres have gone through a number of distinct phases. Though today's mainstream music may not resemble the earlier years of these styles, artists and producers still draw from the past to create their work. Familiarize yourself with funk, neo-soul, classic hip-hop, and R&B from the 1950s through today. The more you know, the more your value will increase in this crowded, competitive field.

2. Keep Current with Sounds

While Rhodes, piano and vintage synths remain a big part of the music, the computer-centric world of modern hip-hop and R&B production utilizes an ever-evolving palette of sounds. Study the work of cutting-edge producers and research what synthesizers and plug-in sound banks they're using. If you can't afford to upgrade your sound library, learn to emulate these sounds with what you already have, and build upon them to create your own unique patches.

Sam Barsh is a keyboardist, songwriter and producer who has appeared on over 65 recordings to date, including recent releases by Anderson .Paak, Ty Dolla $ign, and Eminem. Barsh co-wrote Aloe Blaac's Number One song "The Man," and he worked on Kendrick Lamar's multiple Grammy Award-winning album *To Pimp a Butterfly.* Find-out more at sambarsh.com.

3. Effects Are Your Friends

An effective way to get the most out of your sound arsenal is to utilize effects. Often times, I'll do a gig using only a Rhodes and Wurlitzer, but by adding delay, reverb, and chorus, and tweaking the release and attack filter, I create the illusion of having used many different patches. These effects can add a ton of vibe to an otherwise uninspiring preset.

4. Feel is King

There are no notes, chords, or sounds that are specific only to hip-hop and R&B. The main thing that sets these genres apart is the *feel*. Laying back behind the beat while still keeping solid time, and in-the-pocket funk playing are absolutely crucial. You'll know you're doing it right when people in the audience are either dancing, doing the classic hip-hop head nod, or both!

5. Beware of the Seemingly Simple Song

Many modern hip-hop and R&B songs are based on simple loops or standard forms, but some are not. Often times, there will be little things like an extra bar or an important hit, and not knowing where they are can throw off the artist and waste valuable studio or rehearsal time. Learning songs that are the same 95 percent of the time, but have one small change, can be more challenging than songs that are constantly moving. Do your homework and come to every situation prepared. People will take notice.! ♫

The Sam Barsh Trio plays "You Want My Cup"

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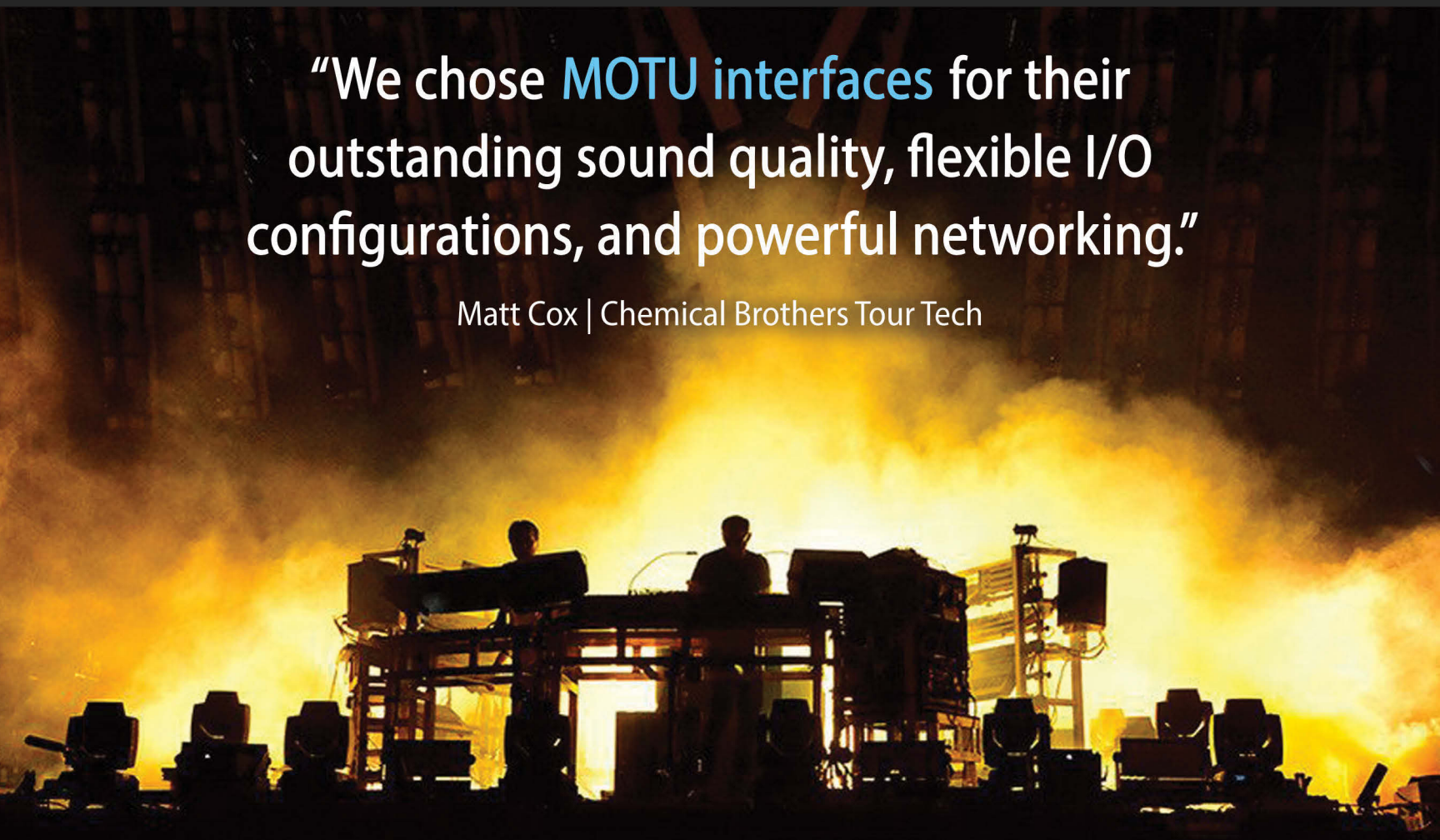

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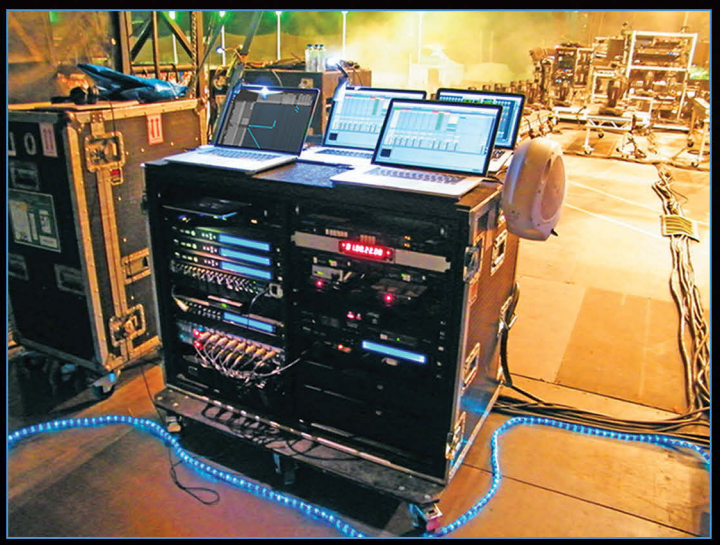

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